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VOLUME II OCTOBER 31, 1905 NUMBER 42

THE

DENTAL SCHOOL

1905–06

Published by Harvard University
CAMBRIDGE, MASS.

OFFICIAL REGISTER OF HARVARD UNIVERSITY

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These publications include:—

The Annual Reports of the President and of the Treasurer.

The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University; the Announcements of the several Departments; etc., etc.

ANNUAL ANNOUNCEMENT

OF THE

DENTAL SCHOOL

OF

HARVARD UNIVERSITY

1905–06

CAMBRIDGE, MASS.
Published by the University
1905

1905.

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DENTAL SCHOOL CALENDAR.

1905.

Sept. 21, Thursday. Examinations begin for applicants for advanced standing, and for men previously conditioned.

Sept. 28, Thursday. **Academic Year begins.** Registration of Students.

Nov. 30, Thursday. Thanksgiving Day: a holiday.

Recess from Dec. 23, 1905, to Jan. 2, 1906, inclusive.

1906.

Jan. 1, Monday. Last day for receiving dissertations for the Boylston Medical Prizes.

Jan. 13, Saturday. Last day for receiving applications from students in the Professional Schools to be qualified for the degree of A.M. in 1906.

Jan. 30, Tuesday. Mid-year examinations begin.

Feb. 1, Thursday. **Second half-year begins.**

Feb. 22, Thursday. Washington's Birthday: a holiday.

March 31, Saturday. Last day for receiving dissertations for the Bowdoin Prizes.

Recess from April 15 to April 21, inclusive.

May 1, Tuesday. Last day for receiving dissertations for the Dante, Toppan, and Sumner Prizes.

May 1, Tuesday. Last day for receiving applications of candidates for the degree of D.M.D. in June.

May 30, Wednesday. Memorial Day: a holiday.

June 1, Friday. Examinations begin.

June 25, Monday. Alumni Day.

June 25–30, Monday to Saturday. Examinations for admission.

June 27, Wednesday. **Commencement.**

SUMMER VACATION OF THIRTEEN WEEKS, FROM COMMENCEMENT DAY TO SEPTEMBER 26, INCLUSIVE.

Sept. 20, Thursday.	Examinations begin for applicants for advanced standing, and for men previously conditioned.
Sept. 17–22, Monday to Saturday.	Examinations for admission.
Sept. 27, Thursday.	**Academic Year begins.** Registration of Students.

ADMINISTRATIVE OFFICERS.

THE UNIVERSITY.

President: Charles William Eliot, A.M., LL.D.
Office, 5 University Hall, Cambridge.

Treasurer: Charles Francis Adams, 2d, A.B., LL.B.

Comptroller: Allen Danforth, A.M.
The office of the Corporation (and of the Treasurer and the Comptroller) is at 50 State Street, Boston. Office hours, 10 A.M. to 2 P.M.; Saturday, 10 A.M. to 12 M.

Bursar: Charles Frank Mason, A.B.
Office, Dane Hall, Cambridge. Office hours, 9 A.M. to 1 P.M.

Librarian: William Coolidge Lane, A.B.
Office, Gore Hall, Cambridge.

Director of Hemenway Gymnasium: Dudley Allen Sargent, M.D., S.D.
Office, Hemenway Gymnasium, Cambridge.

Regent: Charles Miner Stearns, A.B.
Office, 5 University Hall, Cambridge. Office hours, daily, except Saturday, 9 to 10.30 A.M.

Publication Agent: John Bertram Williams, A.B.
Office, 2 University Hall, Cambridge. Office hours, 9 A.M. to 5 P.M.; Saturday, 9 A.M. to 12.30 P.M.

Secretary to the President: Jerome Davis Greene, A.B.
Office, 5 University Hall, Cambridge.

THE FACULTY OF ARTS AND SCIENCES.

The Offices of this Faculty and of the Departments under its charge at Nos. 4, 5, 9, 10, and 16, University Hall, Cambridge, are open on weekdays, except Saturdays, from 9 A.M. *to* 1 P.M., *and on Saturdays from* 9 A.M. *to* 12 M. *Nos. 5, 9, 10, and 16 are also ordinarily open on weekdays, except Saturdays, from* 2 *to* 4 P.M.

Dean of the Faculty of Arts and Sciences: Le Baron Russell Briggs, A.M., LL.D.
Office, 5 University Hall. Office hours, 9 A.M. to 12 M., Monday.

Dean of the Graduate School of Arts and Sciences: John Henry Wright, A.M., LL.D.
Office, 10 University Hall. Office hours, Monday, Thursday, 3 P.M.

Dean of Harvard College: Byron Satterlee Hurlbut, A.M.
Office, 4 University Hall. Office hours, Monday, Tuesday, Friday, 10 A.M. to 12.30 P.M.

Assistant Dean of Harvard College: Edgar Huidekoper Wells, A.B.
Office, 4 University Hall. Office hours, Wednesday, Thursday, 10 A.M. to 12.30 P.M.

Dean of the Lawrence Scientific School: Nathaniel Southgate Shaler, S.D., LL.D.
Office, 16 University Hall. Office hours, daily, 9 A.M., except Saturday.

Secretary of the Faculty of Arts and Sciences, and *Chairman of the Committee on Special Students:* John Goddard Hart, A.M.
Office, 5 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

Chairman of the Committee on Admission from other Colleges: George Washington Cram, A.B.
Office, 4 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

Recorder of the Faculty of Arts and Sciences: George Washington Cram, A.B.
Office, 4 University Hall. Office hours, daily, 9 A.M. to 1 P.M.

Secretary of the Lawrence Scientific School, and *Clerk of the Summer School:* James Lee Love, A.M.
Office, 16 University Hall. Office hours, 9 to 10 A.M. and 3 P.M.; Saturday, 9 A.M.

Secretary of the Graduate School of Arts and Sciences: George Washington Robinson, A.B.
Office, 10 University Hall. Office hours, daily, 10 A.M. to 12 M., and daily, except Saturday, 2 to 4 P.M.

Secretary for Appointments: Henry Smith Thompson, A.B.
Office, 9 University Hall. Office hours, daily, 10 A.M. to 12 M., and daily, except Saturday, 2 to 4 P.M.

LABORATORIES AND MUSEUMS ASSOCIATED WITH THE FACULTY OF ARTS AND SCIENCES.

Director of the Chemical Laboratory: Charles Robert Sanger, PH.D.
The Chemical Laboratory is in Boylston Hall.

Director of the Jefferson Physical Laboratory: John Trowbridge, S.D.
The Jefferson Physical Laboratory is on Holmes Field.

Director of the University Museum: Alexander Agassiz, LL.D.

Curator of the Museum of Comparative Zoölogy: Samuel Henshaw, A.M.

In charge of the Botanical Museum: GEORGE LINCOLN GOODALE, M.D., LL.D.

The Botanical Laboratories are in the same building.

Curator of the Mineralogical Museum: JOHN ELIOT WOLFF, PH.D.

Curator of the Peabody Museum of Archaeology and Ethnology: FREDERIC WARD PUTNAM, A.M., S.D.

The above Museums are between Oxford Street and Divinity Avenue.

Curator of the Semitic Museum: DAVID GORDON LYON, PH.D., D.D.

The Semitic Museum is on Divinity Avenue.

Curator of the Germanic Museum: KUNO FRANCKE, PH.D., LL.D.

The Germanic Museum is at the junction of Cambridge Street and Broadway, opposite Memorial Hall.

Director of the William Hayes Fogg Museum of Art, and *Curator of the Gray Collection of Engravings:* CHARLES HERBERT MOORE, A.M.

The Fogg Museum of Art is on Cambridge Street.

Director of the Botanic Garden: GEORGE LINCOLN GOODALE, M.D., LL.D.

Curator of the Gray Herbarium: BENJAMIN LINCOLN ROBINSON, PH.D.

The Herbarium and Botanic Garden are at the corner of Garden and Linnaean Streets.

OTHER FACULTIES AND DEPARTMENTS.

Dean of the Faculty of Divinity: FRANCIS GREENWOOD PEABODY, A.M., D.D.

Secretary of the Faculty of Divinity, and *Librarian of the Divinity School:* ROBERT SWAIN MORISON, A.M., S.T.B.

Office, Divinity Library, Cambridge. Office hours, daily, 9 A.M. to 1 P.M.

Dean of the Faculty of Law: JAMES BARR AMES, LL.B., LL.D.

Office, Austin Hall, Cambridge.

Secretary of the Faculty of Law: FREDERIC LOUIS FISCHER, A.B.

Office, Austin Hall, Cambridge.

Librarian of the Law School: JOHN HIMES ARNOLD, A.M.

Asst. Librarians of the Law School { CHARLES FRANCIS DORR BELDEN, LL.B.
ROBERT BOWIE ANDERSON.

Office, Austin Hall, Cambridge.

Dean of the Faculty of Medicine
Dean of the Medical School } WILLIAM LAMBERT RICHARDSON, M.D.

Office, Harvard Medical School, corner of Boylston and Exeter Streets, Boston. Office hours, Tuesday, Friday, 12.15 P.M. to 1 P.M.

Secretary of the Faculty of Medicine: CHARLES MONTRAVILLE GREEN, M.D.
Office, Harvard Medical School, corner of Boylston and Exeter Streets, Boston. Office hours, Monday, Thursday, 12 M. to 1 P.M.

Dean of the Dental School: EUGENE HANES SMITH, D.M.D.
The Dental School is on North Grove Street, Boston. The office of the Dean is at 283 Dartmouth Street, Boston. Office hours, 9 A.M. to 4 P.M.

Curator of the Dental Museum: WALDO ELIAS BOARDMAN, D.M.D.
Office, 184 Boylston Street, Boston.

Dean of the Bussey Institution: FRANCIS HUMPHREYS STORER, S.B., A.M.
The Bussey Institution is in Jamaica Plain. The nearest railway and telegraph station is Forest Hills, on the Boston and Providence Division of the N.Y.. N.H., and Hartford Railroad.

Superintendent of the Bussey Farm: EDMUND HERSEY.
The post-office address of the Farm Superintendent is Roslindale.

Director of the Arnold Arboretum: CHARLES SPRAGUE SARGENT, A.B., LL.D.
The Arnold Arboretum is in Jamaica Plain. The nearest railway and telegraph station is Forest Hills, on the Boston and Providence Division of the N.Y., N.H., and Hartford Railroad.

Director of the Astronomical Observatory: EDWARD CHARLES PICKERING, LL.D.
The Observatory is at the corner of Garden and Bond Streets, Cambridge.

THE DENTAL SCHOOL

FACULTY OF MEDICINE.*

CHARLES W. ELIOT, A.M., LL.D., PRESIDENT.

WILLIAM L. RICHARDSON, M.D., DEAN, and *Professor of Obstetrics.*

HENRY P. BOWDITCH, M.D., LL.D., D.Sc., *George Higginson Professor of Physiology.*

CLARENCE J. BLAKE, M.D., *Professor of Otology.*

J. COLLINS WARREN, M.D., LL.D., HON. F.R.C.S. (Eng.), *Moseley Professor of Surgery.*

REGINALD H. FITZ, M.D., LL.D., *Hersey Professor of the Theory and Practice of Physic.*

THOMAS DWIGHT, M.D., LL.D., *Parkman Professor of Anatomy.*

JOHN H. McCOLLOM, M.D., *Assistant Professor of Contagious Diseases.*

JAMES J. PUTNAM, M.D., *Professor of Diseases of the Nervous System.*

FREDERICK C. SHATTUCK, M.D., *Jackson Professor of Clinical Medicine.*

EDWARD H. BRADFORD, M.D., *Professor of Orthopedic Surgery.*

CHARLES A. BRACKETT, D.M.D., *Professor of Dental Pathology.*

THOMAS MORGAN ROTCH, M.D., *Professor of Pediatrics.*

EUGENE H. SMITH, D.M.D., *Professor of Mechanical Dentistry and Orthodontia*, and *Dean of the Dental School.*

WILLIAM F. WHITNEY, M.D., *Curator of the Anatomical Museum.*

CHARLES S. MINOT, S.D., LL.D., D.Sc., *Professor of Histology and Human Embryology.*

MAURICE H. RICHARDSON, M.D., *Professor of Clinical Surgery.*

CHARLES M. GREEN, M.D., *Associate Professor of Obstetrics and Clinical Gynaecology*, and *Secretary of the Faculty of Medicine.*

EDWARD C. BRIGGS, M.D., D.M.D., *Professor of Dental Materia Medica and Therapeutics.*

WILLIAM T. COUNCILMAN, M.D., *Shattuck Professor of Pathological Anatomy.*

* Arranged here and elsewhere in the Catalogue, with the exception of the President and Dean, on the basis of collegiate seniority.

HERBERT L. BURRELL, M.D., *Professor of Clinical Surgery.*
MYLES STANDISH, M.D., *Assistant Professor of Ophthalmology.*
HAROLD C. ERNST, M.D., *Professor of Bacteriology.*
CHARLES HARRINGTON, M.D., *Assistant Professor of Hygiene.*
WILLIAM H. POTTER, D.M.D., *Professor of Operative Dentistry.*
JOHN T. BOWEN, M.D., *Assistant Professor of Dermatology.*
GEORGE G. SEARS, M.D., *Assistant Professor of Clinical Medicine.*
FRANZ PFAFF, M.D., *Professor of Pharmacology and Therapeutics.*
THEOBALD SMITH, M.D., *George Fabyan Professor of Comparative Pathology.*
WILLIAM T. PORTER, M.D., *Associate Professor of Physiology.*
FRANK B. MALLORY, M.D., *Associate Professor of Pathology.*
EDWARD H. NICHOLS, M.D., *Assistant Professor of Surgical Pathology.*
WALTER B. CANNON, M.D., *Assistant Professor of Physiology.*
JOHN WARREN, M.D., *Demonstrator of Anatomy.*

STANDING COMMITTEES FOR THE DENTAL SCHOOL.

Admission Examination. — Dr. Potter (*Chairman*), Drs. Briggs, and Clapp.

Courses of Study. — Dr. Smith (*Chairman*), Drs. Potter, Cooke, and Briggs.

Students' Health. — Dr. Ernst (*Chairman*), and Drs. Putnam, E. H. Smith, J. B. Blake, and Badger.

Students' Aid. — Any student who needs assistance, pecuniary or other, may apply for information to the Dean's Secretary.

THE DENTAL SCHOOL,

BOSTON.

GENERAL STATEMENT.

The Harvard Dental School is established in Boston and was instituted by vote of the President and Fellows of Harvard College, July 17, 1867. The first session of the School opened on the first Wednesday in November, 1867, and continued until the following March. The first examination of candidates for the degree of the School was held March 6, 1869.

The academic year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June. There is a recess from December 23 to January 2, inclusive; and a recess of one week's duration in April.

Instruction in this School is given throughout the academic year, by lectures, recitations, clinical teaching, and practical exercises, uniformly distributed. The course of instruction is progressive, and extends over three years, the teaching of one year not being repeated in the next.

The studies of the first year are pursued in connection with the classes in the Harvard Medical School, the student receiving instruction by the same professors at the same time and place with the medical students, and at the end of the year passing with them the examinations.

It is the object of the Faculty to present a complete course of instruction in the theory and practice of Dentistry; and for this purpose a well-appointed laboratory and infirmary are provided, and such arrangements made as ensure an ample supply of patients. Clinical instruction is given by the professors and other instructors; and, under the direction of demonstrators, patients are assigned to the students, ensuring to all opportunity of operating at the chair, and becoming by actual practice familiar with all the operations demanded of the dentist.

The Infirmary remains open, and clinical instructors and a demonstrator are in attendance, daily, throughout the academic year, offering to students excellent facilities for acquiring practical knowledge and manipulative dexterity.

Students have access to the hospitals of the city; to the dissecting-room and museum of the Medical School. Students in regular standing in any one department of the University are admitted free to the instruction and

the examinations given in any other department, with the exception of exercises carried on in the special laboratories. But no student whose tuition fee for the year amounts to less than $150 is admitted to exercises given in any department other than that in which he is enrolled, except by special permission of the Dean of the department in which the instruction is given, after being duly accredited thereto by the Dean of the department of which the student is a member.

That the time of study shall count as a full term, students of every class must present themselves within the first week of the term and register their names with the Dean.

ADMINISTRATIVE BOARD.

EUGENE H. SMITH, D.M.D., Dean, and *Professor of Mechanical Dentistry and Orthodontia.*

CHARLES A. BRACKETT, D.M.D., *Professor of Dental Pathology.*

EDWARD C. BRIGGS, M.D., D.M.D., *Professor of Dental Materia Medica and Therapeutics.*

WILLIAM P. COOKE, D.M.D., *Assistant Professor of Mechanical Dentistry.*

WILLIAM H. POTTER, D.M.D., *Professor of Operative Dentistry.*

DWIGHT M. CLAPP, D.M.D., *Clinical Lecturer on Operative Dentistry.*

WALDO E. BOARDMAN, D.M.D., *Curator of Dental Museum*, and *Librarian.*

HAROLD DeW. CROSS, D.M.D., *Demonstrator of Mechanical Dentistry.*

INSTRUCTORS, LECTURERS, AND ASSISTANTS.

FORREST G. EDDY, D.M.D., *Instructor in Operative Dentistry.*

JULIUS G. W. WERNER, D.M.D., *Clinical Instructor in Operative Dentistry.*

GEORGE H. MONKS, M.D., M.R.C.S., *Lecturer on Surgery.*

DWIGHT M. CLAPP, D.M.D., *Clinical Lecturer on Operative Dentistry.*

EDWIN C. BLAISDELL, D.M.D., *Instructor in Operative Dentistry.*

FREDERICK BRADLEY, D.M.D., *Lecturer on Operative Dentistry.*

ARTHUR H. STODDARD, D.M.D., *Clinical Lecturer on Mechanical Dentistry.*

JOHN BAPST BLAKE, M.D., *Instructor in Surgery.*

BENJAMIN H. CODMAN, D.M.D., *Instructor in Mechanical Dentistry.*

ARTHUR W. ELDRED, D.M.D., *Instructor in Mechanical Dentistry.*

AMOS I. HADLEY, D.M.D., *Instructor in Mechanical Dentistry.*
JOSEPH T. PAUL, D.M.D., *Instructor in Operative Dentistry.*
EDWARD W. TAYLOR, M.D., *Instructor in Neurology.*
HARRY S. PARSONS, M.D., D.M.D., *Instructor in Mechanical Dentistry.*
H. CARLTON SMITH, PH.G., *Lecturer* and *Austin Teaching Fellow in Dental Chemistry.*
DWIGHT W. DICKINSON, D.M.D., *Demonstrator of Operative Dentistry.*
THOMAS B. HAYDEN, D.M.D., *Instructor in Mechanical Dentistry.*
JAMES A. FURFEY, D.M.D., *Instructor in Operative Dentistry.*
MARQUIS D. LITTIG, D.D.S., M.D., D.M.D., *Instructor in Operative Dentistry.*
ROBERT T. MOFFATT, D.M.D., *Instructor in Mechanical Dentistry.*
WILFRED H. STARRATT, D.M.D., *Instructor in Operative Dentistry.*
ERNEST H. CHUTE, D.M.D., *Instructor in Mechanical Dentistry.*
HAROLD DEW. CROSS, D.M.D., *Demonstrator of Mechanical Dentistry.*
EDWIN L. FARRINGTON, D.M.D., *Instructor in Extracting and Anaesthesia.*
HARRY W. HALEY, D.M.D., *Instructor in Mechanical Dentistry.*
JOHN D. DICKINSON, D.M.D., *Clinical Instructor in Mechanical Dentistry.*
LAWRENCE W. BAKER, D.M.D., *Instructor in Orthodontia.*
ERNEST J. HART, D.M.D., *Instructor in Extracting and Anaesthesia.*
ELMER J. MARSTON, D.M.D., *Instructor in Extracting and Anaesthesia.*
WILLIAM D. SQUAREBRIGS, D.M.D., *Instructor in Extracting and Anaesthesia.*
JAMES B. CROFWELL, D.M.D., *Instructor in Mechanical Dentistry.*
ELBRIDGE D. KING, D.M.D., *Instructor in Mechanical Dentistry.*
HORACE A. DAVIS, D.M.D., *Instructor in Mechanical Dentistry.*
JOHN W. ESTABROOKS, D.M.D., *Instructor in Mechanical Dentistry.*
CHARLES W. RODGERS, D.M.D., *Instructor in Dental Materia Medica.*
DAVID F. SPINNEY, D.M.D., *Instructor in Mechanical Dentistry.*
JOHN W. DICKINSON, D.M.D., *Instructor in Mechanical Dentistry.*
WILSON C. DORT, D.M.D., *Instructor in Mechanical Dentistry.*
SAMUEL T. ELLIOTT, D.M.D., *Instructor in Operative Dentistry.*
CHARLES G. PIKE, D.M.D., *Instructor in Operative Dentistry.*
NORMAN G. REOCH, D.M.D., *Instructor in Orthodontia.*
MELVILLE F. ROGERS, D.M.D., *Instructor in Operative Dentistry.*

ROBERT WHITEHILL, D.M.D., *Instructor in Operative Dentistry.*
JAMES J. O'BRIEN, D.M.D., *Instructor in Extracting and Anaesthesia.*
HARRY B. SHUMAN, D.M.D., *Instructor in Oral Surgery.*
HERBERT F. LANGLEY, D.M.D., *Instructor in Mechanical Dentistry.*
MARTIN B. DILL, D.M.D., *Instructor in Mechanical Dentistry.*
LEROY M. S. MINER, D.M.D., *Instructor in Extracting and Anaesthesia.*

DENTISTS TO OUT-PATIENTS.

HORACE L. HOWE, D.M.D.
EUGENE B. WYMAN, D.M.D.
CHARLES E. STEVENS, D.M.D.
LUTHER D. SHEPARD, Jr., M.D., D.M.D.
WALTER A. BRADFORD, D.M.D.
AUSTIN H. PARKER, D.M.D.
FRANK L. EAMES, D.M.D.
BENJAMIN TISHLER, D.M.D.

STUDENTS.

POST-GRADUATE.

NAME.	HOME RESIDENCE.	PRESENT ADDRESS.*
Aubrey, Harold Percivall, L.D.S. (*England*) 1903,	*Bournemouth, Eng.*	165 W. Canton St.

THIRD YEAR.

Andrews, Horatio LeSeur,	*Cambridge*,	1044 Mass. Ave., Cambridge.
Aubrey, Francis Leonard, L.D.S. (*England*) 1905,	*Bournemouth, Eng.*	165 W. Canton St.
Baker, William Henry,	*New Dorchester*,	67 Ocean St., New Dor.
Baldwin, Howard Watson,	*Great Barrington*,	129 Charles St.
Bannister, Leonard Andrew,	*Taunton*,	80 W. Rutland Sq.
Beckford, Fred Alexander,	*E. Dedham*,	419 Boylston St.
Bissell, George DeForest,	*Naugatuck, Conn.*	80 W. Rutland St.
Broek, Willem Matthias van den,	*Muldelharms, Holland*,	21 St. Botolph St.
Brogan, William Nicholas,	*Cambridge*,	27 Sherman St., Cambridge.

* Addresses are in Boston unless stated to be elsewhere.

Charlton, Percie Chater,	*Sydney, Australia,*	163 W. Canton St.
Clapp, Howard,	*Boston,*	130 Commonwealth Ave.
Collins, Robert Glendinning,	*Bridgeport, Conn.*	Bridgeport, Conn.
Crowley, Arthur Sylvester,	*Cambridge,*	36 Gorham St., Cambridge.
Descroix, Alban Berchmans Chrysostome,	*Angoulême, France,*	106 Huntington Ave.
Desoe, Roland Edward,	*W. Springfield,*	21 St. Botolph St.
Farnum, Joseph Elisha,	*Fall River,*	14 Ellsworth Ave., Cambridge.
Greene, Merton Henry,	*Gardner,*	12 Ashford St., Allston.
Greene, Thomas Peckham Ernest,	*Newport, R.I.*	73 Westland Ave.
Hackett, Charles Joseph,	*Boston,*	63 Chestnut St.
Hassett, John Edward,	*Rockville, Conn.*	91 Revere St.
Hope, Robert,	*Wellington, N.Z.*	56 Boylston St., Cambridge.
Jacobson, Harry Nelson,	*Portland, Me.*	12 Yarmouth St.
Jenkins, Meritt, PH.B. (*Tufts Coll.*) 1901,	*No. Weymouth,*	157 North St., No. Weymouth.
Kahn, Herman Eli,	*Leadville, Colo.*	78 Pinckney St.
Lanigan, Thomas Nicholas,	*Rockland,*	108 Exchange St., Rockland.
Loomer, Edward Henry,	*Dorchester,*	28A Thornley St., Dor.
Mack, Cornelius Henry,	*W. Springfield,*	21 St. Botolph St.
McManus, Terence Benson,	*Providence, R.I.*	352 Columbus Ave.
Morrison, George Smythe,	*Brookline,*	15 Thayer Pl., Brookline.
Multer, Virgilo,	*Marlboro,*	352 Columbus Ave.
Murray, Frank Thomas,	*Everett,*	31 Reynolds Ave., Everett.
Niles, John Gilchrist,	*Somerville,*	4 Fairlee St., Somer.
Norwood, Harold Bradshaw,	*Beverly,*	121 Charles St.
Peters, Maurice Earle,	*St. John, N.B.*	131 Pembroke St.
Phillips, Francis Henry,	*Springfield,*	401 Mass. Ave.
Riggs, William Dawbney,	*Newport, R.I.*	Perkins 51, Cambridge.
Slack, Judson Clarence,	*No. Abington,*	No. Abington.
Strangman, William Fiske,	*Gloucester,*	98 Revere St.
Webster, Arthur Garfield,	*Charlestown,*	37 Monument Sq., Ch's'n.
Whitchurch, Ernest Victor Leon,	*Malden,*	31 Lowell St., Malden.
Weinz, Willis Henry,	*Roxbury,*	24 Akron St., Roxbury.
Woods, Fred Sumner,	*So. Portland, Me.*	448 Pleasant St., Wyoming.

SECOND YEAR.

Atherton, Lawrence George,	*Lynn,*	178 Ocean St., Lynn.
Barber, Howard Philip,	*Blackstone,*	11 Main St., Blackstone.
Breen, John Albert,	*Charlestown,*	16 Cook St., Ch's'n.
Challis, Charles Julius Edmond,	*Auckland, N.Z.*	163 W. Canton St.
Chertok, Moses Alexander,	*Boston,*	60 Leverett St.

Fearing, Benjamin Harold,	*Northampton*,	3 Wellington St.
Finkelstein, Nathaniel Abraham,	*Boston*,	4 Lowell St.
Flannery, David Leo,	*Somerville*,	34 Franklin Ave., Somer.
Greene, Earle Robinson,	*Milford*,	3 Wellington St.
Huggins, Samuel Carson,	*London, England*,	76 St. Stephen St.
Kent, Edwin Stearns, PH.B. (*Yale Univ.*) 1904,	*Cambridge*,	891 Mass. Ave., Cambridge.
Kew, Irvin Whiteley,	*Hong Kong, China*,	43 W. Canton St.
Lane, Howard Arthur,	*Dorchester*,	110 Radcliffe St., Dor.
Leavitt, Alvin Benton, B.S. (*Dartmouth Coll.*) 1899,	*Boston*,	120 W. Concord St.
Lepper, David Barnard, M.D. 1902,	*Madison, N. H.*	23 Myrtle St.
Lobo, José Paulo Filomeno Piedade Martinho, M.D. (*Lisbon, Portugal*) 1900,	*Goa, India*,	248 Prospect St., Cambridge.
McPherson, George Nicholson,	*E. Boston*,	342 Meridian St.
Marggraff, Herman Dutton,	*Watertown, Conn.*	153 Warren Ave.
Owen, Richard John,	*Auckland, N.Z.*	163 W. Canton St.
Ruelberg, Reinhold,	*Boston*,	100 Day St.
Thompson, John Campbell,	*Allegheny, Pa.*	Y.M.C.A. Bldg., Cambridge.
Tibbetts, John Edwin,	*Rockland, Me.*	78 Pinckney St.
White, Leo Augustus,	*Charlestown*,	8 Cedar St., Ch's'n.

FIRST YEAR.

Baker, Chester Stoyle,	*Lynn*,	36 Phillips Ave., Lynn.
Bigelow, Lyman Waldo,	*Norwood*,	122 Day St., Norwood.
Calder, Ernest Spencer,	*Providence, R.I.*	308 Harvard St., Cam-
Daly, William Sixtus Anthony,	*Roxbury*,	76 Blue Hill Ave. [bridge.
Danahy, Cornelius Francis,	*Canton*,	Canton.
Flagg, Guy Edward,	*Woodstock, N.B.*	165 W. Canton St.
Jenkins, John Lindsay Webster, A.B. 1901,	*Jamaica Plain*,	73 Elm St., Jam. Pl.
Kelly, Raymond Lawrence,	*Randolph*,	Main St., Randolph.
Keyes, Frederic Anthony,	*So. Boston*,	595 E. 5th St., So. Boston.
Lazarus, Isadore Hyam,	*Boston*,	224 Shawmut Ave.
Magrath, James Timothy,	*So. Boston*,	127 G St., So. Boston.
Myerson, Simon,	*Cambridge*,	4 Hancock Pl., Cambridge.
Parker, Charles Stevens,	*Brookline*,	1804 Beacon St., B'kline.
Quinn, Rupert William,	*Johannesburg, So. Africa*,	163 W. Canton St.
Rand, Arthur Garfield,	*Unity, Me.*	22 Howard St., Malden.
Ring, Joseph Aloysius,	*Dorchester*,	12 Victoria St., Dor.

Russell, Alfred Pierpont, Jr., s.b. (*Howard Coll.*) 1905,	*So. Norfolk, Va.*	4 Cumston St.
Safford, Carl Eaton,	*Keene, N. H.*	165 W. Canton St.
Shannon, Clarence,	*Florenceville, N.B.*	45 Cross St., Malden.
Taft, Roger Browne,	*Cambridge,*	32 Avon Hill St., Cambridge.

SUMMARY.

Post-Graduate Student	1
Third Year Students	42
Second Year Students	23
First Year Students	20
Total	86

ADMISSION TO HARVARD DENTAL SCHOOL.

All candidates for admission holding a degree in letters, science, or medicine, from a recognized college or scientific school, or who have passed an examination for admission to Harvard College or any other reputable college of letters or the Lawrence Scientific School, or furnish evidence of having had equivalent training, are admitted without examination. All other candidates must pass an examination.

All candidates, whether presenting a degree or not, are required to satisfy the Faculty that they have had a course in Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis sufficient to fit them to pursue the courses in Chemistry given at the School, or, failing in this, to pass an examination in General Chemistry and Qualitative Analysis.* Students who are unable to fulfil either of these requirements may enter conditioned in Chemistry.

An opportunity for making up this condition will be furnished during the first half of the first year. Fee for this course, $20, payable in advance. A deposit of five dollars will be required to meet charges for supplies and broken apparatus.

The entrance and first-year examinations will be allowed to foreign students who have passed *equivalent* examinations abroad, upon presentation of proper certificates from the examining boards, vouching for the facts.

A certificate of having passed the examination for admission will admit a student to this School only so long as the entrance requirements remain the same.

Students who have had a preliminary training equivalent to our requirements for admission and who began their professional studies in other recognized Dental or Medical Schools may be admitted to advanced standing; but all persons who apply for admission to the advanced classes must furnish a satisfactory certificate of time spent in dental or medical studies, and must pass examinations in the branches already pursued by the class to which they seek admittance, or furnish evidence of having passed equivalent examinations.

Graduates of recognized dental schools and reputable practitioners of dentistry who have never received a degree will be admitted without examination to the courses in Operative and Mechanical Dentistry, but attendance on such courses does not entitle a student to examination for the degree. A certificate of attendance will be furnished when desired.

* The summer course in General Chemistry and Qualitative Analysis given in July at the Dental School is adapted to students about to enter this School. A deposit of five dollars is required to meet charges for supplies and broken apparatus. Fee, $25, payable in advance.

EXAMINATIONS FOR ADMISSION.

Examinations for admission to the Harvard Dental School are held in June both at Cambridge and at the places named on pages 29, 30; in September they are held at Cambridge only.

GENERAL REGULATIONS.

Registration Blanks.

Any one expecting to take admission examinations should register for such examinations on a form which may be obtained from the Dean of the Harvard Dental School. The Registration Blanks of all candidates who wish to take examinations in June should be properly filled and in the hands of the Dean by June 10; those of candidates who wish to take examinations in September, by September 10.

Good English.

Clear and idiomatic English is expected in all examination papers and note-books written by candidates for admission. Teachers are requested to insist on good English, not only in translations, but in every exercise in which the pupil has occasion to write or to speak English.

Laboratory Examinations.

A candidate who is examined in any study in which a laboratory examination is held will hand in his laboratory note-book at *the hour of the laboratory examination*. Laboratory note-books will be deposited, after examination, in the College office, where they will be kept for one year, subject to the order of the owners.

A candidate examined in June at any place where a laboratory examination is not provided will be required to take such an examination in Cambridge in the autumn; but if he passes the written examination in June and presents a satisfactory note-book, the subject will be temporarily counted in his favor in determining the question of his admission to the School.

Examination Papers.

A set of recent examination papers will be sent free to any address, on application to the Dean of the Harvard Dental School, 283 Dartmouth St., Boston. Separate papers may be had in quantities of not less than *six* copies of any *one paper* (not one each of six different papers) at ten cents a dozen.

STUDIES IN WHICH EXAMINATIONS ARE HELD.

Examinations for admission to the Harvard Dental School will be held in the following subjects. Each candidate must offer studies amounting to 16 points. Sections 1, 2, 3, 4 are required. Electives may be chosen from Section 5.

The figure attached to each study indicates the relative weight (termed points) which will be given to it in determining the question of the candidate's fitness for admission.

1. English (*4*)
2. Physics (*2*)
3. Latin (*4*) *or* French (*2*) and English and American History (*2*)
   or French (*2*) and Greek and Roman History (*2*)
   or German (*2*) and English and American History (*2*)
   or German (*2*) and Greek and Roman History (*2*)
4. Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis (*4*)

In addition he will be obliged to offer either —

5. Algebra (*2*)
   Plane Geometry (*2*)

Or any two of the following: —

Solid Geometry (*1*)
Botany (*1*)
Zoölogy (*1*)
Anatomy, Physiology and Hygiene (*1*)
Wood-working (*1*)
Blacksmithing (*1*)
Chipping, Filing, and Fitting (*1*)
Machine-tool Work (*1*)

The examinations in English, Physics, Latin, French, Greek and Roman History, English and American History, German, Algebra, Plane Geometry, and Anatomy, Physiology and Hygiene will be the same as those given in these subjects (elementary grade) for admission to Harvard College.

The examinations in Botany, Zoölogy, Woodworking, Blacksmithing, Chipping, Filing and Fitting, Machine-tool Work, will be the same as those given in these subjects for admission to the Lawrence Scientific School.

The examination in Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis will be given at the Harvard Dental School.

English.

The examination will consist of two parts, which, however, cannot be taken separately: —

I. The candidate will be required to write a paragraph or two on each of several topics chosen by him from a considerable number — perhaps ten or fifteen — set before him on the examination paper.

In 1906, 1907, and 1908, the topics will be drawn from the following works: —

Shakspere's Macbeth and The Merchant of Venice; The Sir Roger de Coverley Papers in the Spectator; Irving's Life of Goldsmith; Coleridge's The Ancient Mariner; Scott's Ivanhoe and The Lady of the Lake; Tennyson's Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur; Lowell's The Vision of Sir Launfal; George Eliot's Silas Marner.

The candidate is expected to read intelligently *all* the books prescribed. He should read them as he reads other books; he is expected, not to know them minutely, but to have freshly in mind their most important parts. In every case the examiner will regard knowledge of the book as less important than ability to write English.

As additional evidence of preparation, the candidate may present an exercise-book, properly certified by his instructor, containing compositions or other written work.

II. A certain number of books will be prescribed for careful study. This part of the examination will be upon subject-matter, literary form, and logical structure, and will also test the candidate's ability to express his knowledge with clearness and accuracy.

The books prescribed for this part of the examination in 1906, 1907, and 1908, are: —

Shakspere's Julius Caesar; Milton's L'Allegro, Il Penseroso, Comus, and Lycidas; Burke's Speech on Conciliation with America; Macaulay's Essay on Addison, and Life of Johnson.

No candidate will be accepted in English whose work is seriously defective in point of spelling, punctuation, grammar, or division into paragraphs.

In connection with the reading and study of the prescribed books, parallel or subsidiary reading should be encouraged, and a considerable amount of English poetry should be committed to memory. The essentials of English grammar should not be neglected in preparatory study.

The English written by a candidate in any of his examination-books may be regarded as part of his examination in English, in case the evidence afforded by the examination-book in English is insufficient.

Physics.*

A course of study dealing with the leading elementary facts and principles of Physics, with quantitative laboratory work by the pupil.

The instruction given in this course should include qualitative lecture-room experiments, and should direct especial attention to the illustrations and applications of physical laws to be found in every-day life. The candidate is required to pass a written examination, the main object of which will be to determine how much he has profited by such instruction. This examination may include numerical problems. It will contain more questions than any one candidate is expected to answer, in order to make allowance for a considerable diversity of instruction in different schools.

The pupil's laboratory work should give practice in the observation and explanation of physical phenomena, some familiarity with methods of measurement, and some training of the hand and the eye in the direction of precision and skill. It should also be regarded as a means of fixing in the mind of the pupil a considerable variety of facts and principles. The candidate is required to pass a laboratory examination, the main object of which will be to determine how much he has profited by such a laboratory course.

The candidate must name as the basis for his laboratory examination at least thirty-five exercises selected from a list of about sixty, described in a publication issued by the University under the title, "Descriptive List of Elementary Exercises in Physics." [*This list may be obtained, price 40 cents, at the Publication Office, 2 University Hall, Cambridge.*] In this list the divisions are mechanics (including hydrostatics), light, heat, sound, and electricity (with magnetism). At least ten of the exercises selected must be in mechanics. Any one of the four other divisions may be omitted altogether, but each of the three remaining divisions must be represented by at least three exercises.

The candidate is required to present a note-book in which he has recorded the steps and the results of his laboratory exercises, and this note-book must bear the endorsement of his teacher, certifying that the notes are a true record of the pupil's work. It should contain an index of the exercises which it describes. These exercises need not be the same as those upon which the candidate presents himself for the laboratory examination, but should be equivalent to them in amount and grade of quantitative work.

The note-book is required as proof that the candidate has formed the habit of keeping a full and intelligible record of laboratory work through an extended course of experiments, and that his work has been of such a character as to raise a presumption in favor of his preparation for the examination. But much greater weight will be given to the laboratory examination than to the note-book in determining the candidate's attainments in physics. Experience has shown that pupils can make the original record of their observations entirely presentable, so that copying will be unnecessary, and they should in general be required to do so.

This course, if taken the last year of the candidate's preparation, is expected to occupy in laboratory work, recitations, and lectures, five of

* For rules relating to the time of handing in note-books and to candidates examined in June in places where no laboratory examination is provided, see page 19.

the ordinary school periods, about fifty minutes in length, per week for the whole year. With few exceptions, exercises like those in the Descriptive List already mentioned can be performed in a single school period, but for satisfactory results it will often be necessary to repeat an exercise. Two periods per week for the year should be sufficient for the laboratory work proper. If the course is begun much earlier than the last year of the candidate's preparation, as it well may be, it will require more time.

Latin.

The examination will be adapted to the proficiency of those who have studied Latin in a systematic course of five lessons a week, extending through at least *three* school years. The passages set for translation must be rendered into simple and idiomatic English. The three parts of the examination cannot be taken separately : —

(*a*) The translation at sight of simple Latin prose.

(*b*) An examination (which may include translation) on the first four books of Virgil's Aeneid, or on selected myths from Ovid's Metamorphoses, with questions on the subject-matter and on literary and historical allusions. Two years' notice will be given of any change in these alternative requirements.

(*c*) An examination directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Latin prose.

German.

(*a*) The translation at sight of simple German prose. (The passages set for translation must be rendered into simple and idiomatic English.)

(*b*) The translation into German of simple English sentences, or of easy connected prose, to test the candidate's familiarity with elementary grammar.

The passages set for translation into English will be suited to the proficiency of candidates who have read not less than two hundred pages of easy German (including reading at sight in class).

Grammar should be studied concurrently with the reading as an indispensable means of ensuring thoroughness and accuracy in the understanding of the language. The requirement in elementary grammar includes the conjugation of the weak and the more usual strong verbs; the declension of articles, adjectives, pronouns, and such nouns as are readily classified; the commoner prepositions; the simpler uses of the modal auxiliaries; the elements of syntax, especially the rules governing the order of words.

Pronunciation should be carefully taught, and the pupils should have frequent opportunities to hear German spoken or read aloud. The writing of German from dictation is recommended as a useful exercise.

French.

(*a*) The translation at sight of ordinary Nineteenth Century prose. (The passages set for translation must be rendered into simple and idiomatic English.)

(*b*) The translation into French of simple English sentences or of easy connected prose, to test the candidate's familiarity with elementary grammar. Proficiency in grammar may also be tested by direct questions, based on the passage set for translation under (*a*).

The passage set for translation into English will be suited to the proficiency of candidates who have read not less than four hundred pages (including reading at sight in class) from the works of at least three different authors. It is desirable that a portion of the reading should be from works other than works of fiction.

Grammar should be studied concurrently with the reading as an indispensable means of ensuring thoroughness and accuracy in the understanding of the language. The requirement in elementary grammar includes the conjugations of regular verbs, of the more frequent irregular verbs, such as *aller*, *envoyer*, *tenir*, *pouvoir*, *voir*, *vouloir*, *dire*, *savoir*, *faire*, and those belonging to the classes represented by *ouvrir*, *dormir*, *connaître*, *conduire*, and *craindre;* the forms and positions of personal pronouns and of possessive, demonstrative, and interrogative adjectives; the inflection of nouns and adjectives for gender and number, except rare cases; the uses of articles, and the partitive constructions.

Pronunciation should be carefully taught, and pupils should have frequent opportunities to hear French spoken or read aloud. The writing of French from dictation is recommended as a useful exercise.

Chemistry.

Theoretical and Descriptive (Inorganic) Chemistry and Qualitative Analysis.

The requirements in general chemistry include a knowledge of the common non-metallic elements, together with their more important compounds, also the sources and principal salts of common metals. Bradbury's, Long's, Storer and Lindsey's or similar text-books on General Chemistry sufficiently cover the ground. Experimental work performed by the student is highly desirable and strongly recommended.

In analytical chemistry the student is expected to have had a laboratory training which has embraced a *systematic* examination of unknown solutions containing at least four metals. In making this preparation it is suggested that particular attention be paid to metals of silver, arsenic and copper groups, as these have the more important bearing on the subject of Dentistry.

Each candidate will be required to pass a written examination in Theoretical and Descriptive (Inorganic) Chemistry and will be required to hand

in, at the hour of this written examination, the original note-book in which he recorded the work performed by him at school in Qualitative Analysis This note-book must give evidence that the student has had practice in the analysis of solutions and solids containing several salts, and must bear the endorsement of his teacher, certifying that the notes are a true record of his work.

History (including Historical Geography).

Either of the two following groups, each including two fields of historical study : —

1. *Greek and Roman History.* — (*a*) Greek History to the death of Alexander, with due reference to Greek life, literature, and art. (*b*) Roman History to the accession of Commodus, with due reference to literature and government.

2. *English and American History.* — (*a*) English History, with due reference to social and political development. (*b*) American History, with the elements of Civil Government.

For preparation in each of the two historical fields presented, a course of study equivalent to at least three lessons a week for one year will be necessary.

The candidate will be expected to show on examination such general knowledge of each field as may be acquired from the study of an accurate text-book of not less than 300 pages, supplemented by suitable parallel readings amounting to not less than 500 pages. The examination will call for comparison of historical characters, periods, and events, and in general for the exercise of judgment as well as of memory. Geographical knowledge will be tested by means of an outline map.

Algebra.

Algebra, through Quadratic Equations.

The requirement in Algebra includes the following subjects: factors, common divisors, and multiples, fractions, ratios and proportions; negative quantities and the interpretation of negative results; the doctrine of exponents; radicals, and equations involving radicals; the binomial theorem for positive integral powers of the binomial, and the extraction of roots; putting questions into equations and the reduction of equations; the ordinary methods of elimination and the solution of both numerical and literal equations of the first and second degrees with one or more unknown quantities and of problems leading to such equations.

The student should cover carefully the whole ground here specified, and should acquire a thorough understanding not only of the practice, but of the reasons involved in the elementary algebraic rules; for example, in the rules of multiplication, of signs, and of exponents, in the rules for fractions, and in those relating to the reduction and solution of equations. He should train himself to practical skill by the solution of a large number of examples, and should learn to do his work with reasonable quickness, as well as with confidence, accuracy, and clearness. The solution of fairly complicated literal quadratics, the various methods of elimination for

equations of the first two degrees, the putting of problems in a neat manner into equations, and the working of the various algebraic operations both for integral and fractional expressions may be mentioned as important subjects of attention. The student should be taught to arrange his work in a clear, orderly, and compact fashion.

The time supposed to be devoted to the systematic study of the requirement in Algebra is the equivalent of a course of three lessons a week through two school years.

Geometry.

Plane and Solid Geometry, including problems in mensuration of plane and solid figures, and original propositions in Plane Geometry.

Geometric education should begin in the kindergarten or primary school, where the child should acquire familiarity through the senses with simple geometric forms, by inspecting, drawing, modelling, and measuring them, and noting their more obvious relations. This study should be followed, in the grammar school, by systematic instruction in Concrete (or Observational) Geometry, of which geometric drawing should form a part. Such instruction should include the main facts of Plane and Solid Geometry, treated as matters of observation, and not as exercises in logical deduction, without however necessarily excluding the beginnings of deductive proof as soon as the pupil is ready for them. Concrete Geometry is believed to have important educational value, and to prepare an excellent foundation for the later study of Formal Geometry. It belongs, however, to the earlier stages of school work, and should not be postponed until the time that belongs to direct preparation for college or the scientific school.

In teaching Formal Geometry, stress should be laid from the outset on accuracy of statement and elegance of form, as well as on clear and strict reasoning. As soon as the pupil has begun to acquire the art of rigorous demonstration, his work should cease to be merely receptive, he should be trained to devise constructions and demonstrations for himself, and this training should be carried through the whole of the work in Plane Geometry. Teachers are advised, in their selection of a text-book, to choose one having a clear tendency to call out the pupil's own powers of thought, prevent the formation of mechanical habits of study, and encourage the concentration of mind which it is a part of the discipline of mathematical study to foster. The subject of Geometry, not a particular treatise, is what the pupil should be set to learn; and its simpler methods and conceptions should be made a part of his habitual and instinctive thought. Lastly, the pupil should be stimulated to good work by interest in the study felt and exhibited by the teacher.

The requirement in Geometry embraces the following topics: the general properties of plane rectilinear figures; the circle and the measure of angles; similar polygons; areas; regular polygons, and the measure of the circle; the relations of planes and lines in space; the properties and measure of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle. The propositions required under these several heads are those only which are contained in the older treatises, and which are recognized as constituting the Elements of Geometry. The examination does not include the additions introduced into some recent text-books, although most of those additions are in themselves valuable for the student who has time and taste for extra study in this field. A syllabus of

the required propositions has been prepared. [*This syllabus may be obtained, price 10 cents, at the Publication Office, 2 University Hall, Cambridge.*]

The examination in Geometry also includes original propositions in Plane Geometry, based on the propositions named in the syllabus, and problems in mensuration in both Plane and Solid Geometry; but excellence in book-work and in exercises immediately illustrating book-work will be allowed to offset in part any lack of skill in original work.

The time which it is recommended to assign to the systematic study of the requirement in Formal Geometry is the equivalent of a course of five lessons a week for one school year; but it is believed to be advisable to extend this allowance of time over two years.

Plane Geometry.

The requirement in Plane Geometry is stated on pages 1–14 of the Syllabus mentioned above.

Solid Geometry.

Chavenet's Geometry, revised and abridged (Philadelphia: J. B. Lippincott & Co.), Books VI, VII, VIII, and IX, will serve to indicate the nature and amount of the requirement in Solid Geometry.

Anatomy, Physiology, and Hygiene.

A course of study and laboratory work equivalent to that described in a pamphlet entitled "An Outline of Requirements in Anatomy, Physiology, and Hygiene," issued by the University.

The candidate will be required to pass both a written and a laboratory examination. The written examination will test the range and thoroughness of his knowledge of the elements of Anatomy, Physiology and Hygiene. The laboratory examination will test (*a*) his ability to perform the experiments described in the Outline of Requirements, and (*b*) his knowledge of the first aids to be rendered to the injured.

At the time of the laboratory examination the candidate must present the original note-book containing (with dates) the notes and drawings he has made in the course of his laboratory work, and bearing the endorsement of his teacher, certifying that the book is a true record of the pupil's own observations and experiments. An index of subjects should be appended.

Botany and Zoölogy.

Botany. — A course of study and laboratory work equivalent to that indicated in an "Outline of Requirements in Botany," issued by the University. The course should extend through at least half of a school year, with five lessons a week. The laboratory work is to be directed especially to the external anatomy and the activities of our common plants.

Zoölogy. — A course of study and laboratory work equivalent to that described in a pamphlet entitled "An Outline of Requirements in Zoölogy," issued by the University. The course should extend through at least half of a school year, with five lessons a week, and should include the laboratory study of at least ten types of animals, with special reference to their external anatomy and their activities. These types are to be selected in accordance with directions given in the pamphlet named.

In Botany and in Zoölogy the candidate will be required to pass both a written and a laboratory examination. The written examination will test the range and thoroughness of his knowledge of the subject. The laboratory examination will test his skill in observation and experimentation, and his ability to apply names properly to the parts of the organisms studied.

At the time of the laboratory examination the candidate must present the original note-book containing (with dates) the notes and drawings he has made in the course of his laboratory work, and bearing the endorsement of his teacher, certifying that the book is a true record of the pupil's own observations and experiments. An index of subjects should be appended.

Shopwork.

A course of instruction in the use of tools and in the ordinary processes employed in the working of wood or metal, equivalent to that described in a pamphlet entitled "An Outline of Requirements in Shopwork," issued by the University. The course may embrace one or more of the following divisions: —

Wood-working;
Blacksmithing;
Chipping, Filing, and Fitting;
Machine-tool Work.

The candidate must be familiar with the name, construction, and operation of the tools commonly used in these processes, and will be expected to read ordinary mechanical drawings and to make freehand sketches of articles which are to be produced in the workshop.

The candidate is required to pass both a written and a laboratory examination. The written examination will test his knowledge of tools and mechanical processes, and of the properties of materials of common use in construction. He will be expected to show familiarity with approved methods for simple work in the branch in which he presents himself for examination, and to write an intelligible description of those methods, illustrated by such sketches as may be necessary to make them clear. The laboratory examination will test the candidate's skill in the use of tools. He will receive the materials and specifications for a piece of work, and will be expected to select his tools, preparing them for use if necessary, and to demonstrate satisfactorily his knowledge and skill.

Every candidate is further required to present the original note-book in which he entered the descriptions and sketches of the work he performed

at school; and with this he may present, as evidence of his skill in the workshop, the models made by him at school. Both the note-book and the models must be accompanied by the endorsement of his teacher, certifying that the book is a true record, and that the models are specimens of the pupil's own work.

TIMES AND PLACES OF EXAMINATION.

Two regular examinations for admission to the First Year Class of the Harvard Dental School are held each year, — the June examination, at the beginning of the summer vacation, and the September examination, before the beginning of the academic year in the autumn.

June Examinations.

In 1906, the *June examinations* will be held on *Monday*, *Tuesday*, *Wednesday*, *Thursday*, *Friday*, *and Saturday*, *June 25*, *26*, *27*, *28*, *29*, *and 30*.

The examinations in June will probably be held in the following places: —

Cambridge, in Sever Hall.
Quincy, in the rooms of the Quincy High School.
Concord, in the rooms of the Middlesex School.
Andover, in the rooms of Phillips Academy.
Milton, in the rooms of Milton Academy.
Groton, in the rooms of Groton School.
Southborough, in the rooms of St. Mark's School.
Worcester, in the rooms of the English High School.
Lynn, in the rooms of the Classical High School.
Springfield, in the rooms of the Springfield High School.
Fall River, in the rooms of the B. M. C. Durfee High School.
Exeter, *N. H.*, in the rooms of Phillips Academy.
Concord, *N. H.*, in the rooms of St. Paul's School.
Portland, *Me.*, in the rooms of the Portland High School.
Newport, *R. I.*, in the rooms of St. George's School.
Pomfret Centre, *Conn.*, in the rooms of the Pomfret School.
Washington, *Conn.*, in the rooms of the Gunnery School.
Lakeville, *Conn.*, in the rooms of the Hotchkiss School.
Simsbury, *Conn.*, in the rooms of Westminster School.
New York, *N. Y.*, in the rooms of the Harvard Club.
Tarrytown-on-Hudson, *N. Y.*, in the rooms of the Hackley School.
Garden City, *N. Y.*, in the rooms of the St. Paul's Cathedral School.
Albany, *N. Y.*, in the rooms of the Albany High School.
Buffalo, *N. Y.*, in the rooms of the Buffalo Central High School, corner of Court and Franklin Streets.

Philadelphia, *Pa.*, in the rooms of the Young Men's Christian Association, 15th and Chestnut Streets.
Pottstown, *Pa.*, in the rooms of the Hill School.
Pittsburg, *Pa.*, in the rooms of Shady Side Academy.
Scranton, *Pa.*, in the rooms of the School of the Lackawanna.
Washington, *D. C.*, in the rooms of the Central High School.
Louisville, *Ky.*, in the rooms of the Boys' High School, First Street.
Lima, *Ind.*, in the rooms of the Howe School.
Milwaukee, *Wis.*, in the rooms of the East Division High School.
Cleveland, *O.*, in the rooms of the Central High School.
Cincinnati, *O.*, in the rooms of the Young Men's Christian Association.
Youngstown, *O.*, in the rooms of the Rayen School.
Chicago, *Ill.*, in the rooms of the John Marshall High School, Adams Street.
Detroit, *Mich.*, in the rooms of the Detroit University School.
St. Paul, *Minn.*, in the rooms of St. Paul Academy, corner of Portland Avenue and Dale Street.
St. Louis, *Mo.*, in the rooms of the Board of Education, 9th and Locust Streets.
Kansas City, *Mo.*, in the rooms of the Central High School.
Denver, *Colo.*, in the rooms of the Denver High School (East Side), corner of Nineteenth and Stout Streets.
San Francisco, *Cal.*, in the rooms of the Mechanics' Institute, 31 Post Street.
Portland, *Oregon*, in the Lecture-room of the Portland Library.
Seattle, *Wash.*, in the rooms of the Central School Building, No. 15.
Bonn, *Germany*, at the Hotel Kley.
Honolulu, *Hawaii*, in the rooms of Oahu College.

September Examinations.

The *September examinations* will be held *in Cambridge only* on *Monday*, *Tuesday*, *Wednesday*, *Thursday*, *Friday*, *and Saturday*, *September 17*, *18*, *19*, *20*, *21*, *and 22*.

College Entrance Examination Board.

In June, 1906, certain papers of the College Entrance Examination Board may be substituted for certain papers set for the separate admission examinations held by Harvard University. For more particular information apply to Mr. J. G. Hart, Secretary, 5 University Hall, Cambridge.

The examinations of the Board will be held June 18–23, 1906. Applications to attend the Board's examinations must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-

Station 84, New York, N.Y., and must be made upon a blank form to be obtained from the Secretary upon application.

Applications for examination at points in the United States east of the Mississippi River (also at Minneapolis, St. Louis, and other points on the Mississippi River) must be received by the Secretary on or before Monday, June 4, 1906; applications for examination elsewhere in the United States or in Canada must be received on or before Monday, May 28, 1906; and applications for examination at points outside the United States and Canada must be received on or before Monday, May 14, 1906.

Applications received later than the dates named will be accepted when it is possible to arrange for the examinations of the candidates concerned, but only upon the payment of $5.00 in addition to the usual examination fee.

The examination fee is $5.00 for all candidates examined at points in the United States and Canada, and $15.00 for all candidates examined at points outside of the United States and Canada. The fee (which cannot be accepted in advance of the application) should be remitted by postal order, express order, or draft on New York, to the order of the College Entrance Examination Board.

A list of the places at which examinations are to be held by the Board in 1906 will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1.

REGISTRATION.

The academic year 1906–07 begins on Thursday, September 27, 1906. All students register at the School on North Grove Street, on that day at 9 A.M.

ARRANGEMENT OF STUDIES.

The following is the plan of study in the successive years of the School: —

First Year. — Anatomy-dissection, Physiology, Histology and Embryology; Physiological, Pathological, and Dental Chemistry, and Metallurgy.

Second Year. — Oral Pathology, Operative Dentistry, Oral Surgery, Mechanical Dentistry, and Orthodontia; General and Dental Materia Medica and Therapeutics; Bacteriology; Crown and Bridge Work; practical work daily in the mechanical laboratory and in the operative infirmary.

Third Year. — Operative Dentistry, Oral Surgery, Mechanical Dentistry, and Orthodontia, Neurology, Surgical Pathology and Surgery, Crown and Bridge Work; Dental Jurisprudence; practical work in operative infirmary and mechanical laboratory.

COURSES OF INSTRUCTION.

NOTE. — The figures at the right of the page indicate as accurately as can be ascertained the number of hours of instruction which each student receives in the different courses.

Anatomy.

THOMAS DWIGHT, M.D., LL.D., *Parkman Professor of Anatomy.*
JOHN WARREN, M.D., *Demonstrator of Anatomy.*
ELISHA FLAGG, M.D., *Assistant in Anatomy.*
HARRIS P. MOSHER, M.D., *Assistant in Anatomy.*
CHARLES S. BUTLER, M.D., *Assistant in Anatomy.*
HENRY O. MARCY, Jr., M.D., *Assistant in Anatomy.*
LINCOLN DAVIS, M.D., *Instructor in Anatomy.*
CHAUNCEY W. NORTON, M.D., *Assistant in Anatomy.*
RICHARD G. WADSWORTH, M.D., *Assistant in Anatomy.*
DAVID CHEEVER, M.D., *Assistant in Anatomy.*
DAVID D. SCANNELL, M.D., *Assistant in Anatomy.*
SAMUEL ROBINSON, M.D., *Assistant in Anatomy.*

The instruction consists of lectures; various practical exercises, including abundant dissection under the direction of the Demonstrator; recitations; demonstrations; and study of frozen sections and of the living model. The means and methods of illustrating the anatomical lectures probably are unrivalled in this country. The system of demonstrations to small sections has been greatly extended.

Text-books.— Cunningham. Quain. Morris. Gray. Gerrish. Woolsey, Applied Anatomy.

Collateral Reading. — Dwight, Frozen Sections of a Child. Cunningham, Manual of Practical Anatomy. Macalister, Human Anatomy. Testut, Anatomie Humaine. Poirier, Traité d'Anatomie Humaine. Tillaux, Anatomie Topographique. Humphry, Human Skeleton.

October.

Lectures. Professor DWIGHT. *Nine hours weekly.* 36
Demonstrations and study of bones and joints. *Three hours daily.* 72

November and December.

Lectures. Professor DWIGHT. *Two hours a week in November, three hours a week in December.* 20

Demonstrations. Dr. WARREN. *Four times a week to each section of the class.* 32

Practical anatomy with recitations. *Three hours a day, five times a week.* 120

January.

Lectures and demonstrations. Professor Dwight. *Daily.* 24
Demonstrations. Dr. Warren. *Four times a week to each section of the class.* 16
Demonstrations and study of the brain and organs of sense. *Three hours a day, five times a week.* 60
Practical anatomy with recitations. *Three hours a day, five times a week.* 60

Histology and Embryology.

Charles S. Minot, S.D., LL.D., Sc.D., *Professor of Histology and Human Embryology.*
James C. Donoghue, M.D., *Assistant in Histology.*
John L. Bremer, M.D., *Instructor in Histology and Embryology.*
Frederic T. Lewis, M.D., *Instructor in Histology and Embryology.*
George H. Wright, D.M.D., *Assistant in Histology.*

LABORATORY.

The laboratory comprises a general class room with places for ninety men, and four smaller rooms for the officers of instruction, advanced workers, and for the library and collections. There are 225 microscopes for students' use, which are let to students for three dollars a term. There are over 14,000 permanent preparations used in the class work, a histological collection illustrating most of the features of the microscopic structure of the higher animals, and an embryological collection which includes over nine hundred embryos of various selected vertebrates cut into serial sections, and thoroughly catalogued. There are also numerous wax and paper models for use in the course of instruction.

The equipment includes numerous microtomes, most of the leading patterns being represented, and many other pieces of apparatus, offering altogether ample facilities for elementary and advanced work and for investigation.

The library consists of complete sets of the most important histological and embryological journals, of the standard text-books, and of a private collection, which is open to investigators, of about six thousand pamphlets. A card catalogue and a classified bibliography are maintained, which gives ready access to the literature of histology and embryology.

Text-books. — Böhm and von Davidoff, A Text-Book of Histology. Minot, Text-book of Embryology.

Collateral Reading. — Quain, Anatomy. Lee, Microtomist's Vademecum. Kölliker, Gewebelehre. Minot, Human Embryology. Van Gehuchten, Système Nerveux.

REGULAR COURSES.

Histology and Embryology are taught by lectures and laboratory work; twenty-two hours a week are required during October, November, and December. Every student is recommended to purchase a microscope, but microscopes may be rented, by those who do not possess them, for three dollars a term. Each student is charged a laboratory fee of two dollars.

October.

Lectures. Professor MINOT. *Six times a week.* 24

Laboratory work. Drs. DONOGHUE, BREMER, LEWIS, and WRIGHT. *Three hours, five times a week.* 60

November.

Lectures. Dr. LEWIS. *Three times a week.* 12

Laboratory work. *Four hours, three times a week; three hours, twice a week.* 72

December.

Lectures. Professor MINOT. *Twice a week.* 8

Dental Histology. Laboratory work. Dr. DWIGHT. *Four hours, five times a week.* 160

Physiology.

HENRY P. BOWDITCH, M.D., LL.D., D.Sc., *Professor of Physiology.*
WILLIAM T. PORTER, M.D., *Associate Professor of Physiology.*
WALTER B. CANNON, M.D., *Assistant Professor of Physiology.*
RALPH S. LILLIE, M.D., *Instructor in Physiology.*

First Year — The method of teaching Physiology consists in placing before the student the classical experiments of the science grouped in the most instructive sequence. The student himself performs as many of these as his own skill and the length of the course permit. What he does he is required to do well. The experiments selected are those which best illustrate the several groups or chapters of which physiology is composed. Preference, where possible, is given to observations used in clinical medicine. The observations which he cannot himself make the student reads with an understanding grounded on his own practical experience. The facts thus gained are discussed in conferences, written tests, formal lectures, and recitations.

In the laboratory the student works one hundred and seventy-four hours. Each student is required to preserve the graphic records obtained in his experiments, together with a brief account of his own observations. The character of the laboratory instruction may be seen from the examination questions, page 76.

The conferences, fifty-two half-hour exercises, are devoted to questions and explanations concerning the experimental work; they are, in fact, a combination of recitation and lecture.

The written tests are twenty-minute examinations held daily and one-hour examinations held weekly during fifteen weeks. The following are

some of the questions: State experiments to show where stimulation begins on closure of the galvanic current. What is the reaction of degeneration? Mark on the intra-ventricular pressure curve the moment of opening and closure of the mitral and aortic valves. Give a brief account of the digestion of fat. Give evidence to show that afferent impulses are transmitted by the posterior roots of spinal nerves. Prove the existence of "hot and cold spots" on the skin. Cite experiments to show that the crystalline lens changes its shape in accommodation.

Eighty-six formal lectures are held. These are supplemented by the reading and discussion of forty-three theses.

One recitation is given weekly during fifteen weeks.

Twenty-four special demonstrations are given. The motor areas of the cortex of the brain, and the action of the chorda tympani nerve on the secretion of saliva are examples of the subjects chosen for demonstration.

Each student is required to write a physiological thesis, the material for which must be taken directly from the report of the original investigations. In addition, each student is required to prepare at least one investigation not included in those used for his thesis. About forty-five of the theses are selected for discussion by the class and staff. The subjects chosen are as a rule such as will supplement the instruction given in other ways. The discussions are held five times a week from the sixth to the fifteenth week inclusive. The discussion is opened by three students, each of whom has prepared himself upon some of the original investigations included in the theses, and is continued by the members of the class and of the staff. Among the theses discussed in the last collegiate year were: The excretion of urea; Internal secretion of the pancreas; Oedema; Regeneration of blood after hemorrhage; Artificial pathenogenesis; and Aphasia.

Text-books. — Text-book of Physiology, edited by E. A. Schäfer. Foster, Text-book of Physiology. American Text-book of Physiology. Waller, Human Physiology. Hermann, Lehrbuch der Physiologie. Porter, Introduction to Physiology.

First Year (Second half).

Laboratory experiments. Professor Porter, Asst. Professor Cannon, and Dr. Lillie. *Daily, except Saturday.* 174

Conference (52). Asst. Professor Cannon. 26

Written tests (76). *Twenty minutes daily, except Monday and Saturday.* 25

Written tests (15). *One hour, Mondays.* 15

Lectures (86). Professor Porter and Asst. Professor Cannon. 43

Special demonstrations (23). Professor Porter and Asst. Professor Cannon. 15

Recitations (15). Professor Bowditch and Professor Porter. *Saturdays. First to fifteenth week, inclusive.* 15

Discussion of Theses (43). 33

Thesis. Written by each student from the original sources.

Reading of investigations. The reading of investigations and the discussion of these at the appropriate conference.

Dental and Physiological Chemistry.

H. Carlton Smith, Ph.G., *Austin Teaching Fellow in Dental Chemistry.*

The course in Dental and Physiological Chemistry extends through the entire second term (fifteen weeks) of the first year, and consists of a lecture, demonstration, or recitation, together with a laboratory exercise of two and a half to three and a half hours daily, except Saturday. The course is so arranged that the student is enabled to conduct his laboratory work on the various subjects included in the course in direct connection with the lecture room instruction.

The Dental Chemistry aims to make practical application of such branches of chemical science as shall meet the requirements of the dental practitioner. The instruction given includes blow-pipe work, the principles of volumetric analysis, and the assay of dental alloys; also micro-chemical tests, with special reference to the examination of local anaesthetics and antiseptics; the chemistry of the teeth, salivary calculus and saliva.

The Physiological Chemistry includes a short introductory course in Organic Chemistry sufficient to an intelligent consideration of the composition of the carbohydrates and the proteids, their relationship, chemical properties, and methods of precipitation and separation; also the chemistry of the fats, of digestion, of the different tissues, of bile, blood, lymph, milk, and urine.

Considerable attention is given to the analysis of saliva and of urine, with special reference to the determination of possible relationship between the composition of these fluids and various pathological conditions of interest in Dental practice.

This work is carried on so far as practicable in conjunction with the work in Operative Dentistry, thus giving the student an opportunity to trace for himself probable cause and effect. It is designed to give general information on the subject necessary to intelligent reading, and possible subsequent investigations of an original character.

Opportunities for special investigation will be offered such students as can give the necessary time in the laboratory.

Text-books. — Dental Metallurgy, Essig. Physiological Chemistry, Hammarsten or Novy. Clinical Examination of the Urine, Ogden or Purdy. Examination of the Urine, Saxe.

Collateral Reading. — Halliburton, Text-book of Chemical Physiology and Pathology. Simon, Physiological Chemistry. Bunge, Physiologic and Pathologic Chemistry. Gamgee, Physiological Chemistry of the Animal Body. Lea, Chemical Basis of the Animal Body (appendix to Foster's Text-book of Physiology). Vaughan and Novy, Cellular Toxins. Diseases of Metabolism and Nutrition, by Dr. Carl von Noorden. The Principles of Animal Nutrition, Armsby. Mitchell's Dental Chemistry.

Bacteriology.

Harold C. Ernst, M.D., *Professor of Bacteriology.*
Hibbert W. Hill, M.D., *Instructor in Bacteriology.*
Calvin G. Page, M.D., *Assistant in Bacteriology.*
Francis W. Palfrey, M.D., *Assistant in Bacteriology.*
George L. Baker, M.D., *Assistant in Bacteriology.*
Henry J. Perry, M.D., *Assistant in Bacteriology.*
Eugene E. Everett, M.D., *Assistant in Bacteriology.*
Langdon Frothingham, M.D.V., *Austin Teaching Fellow in Bacteriology.*

Required bacteriology is taught by lectures and practical laboratory work. The lectures treat of the general subject and of methods of practical work. In the laboratory each student has an opportunity to become familiar with the simpler methods of manipulation and staining which are of especial clinical value, and with the more prominent of the pathogenic bacteria.

Lectures. Professor Ernst. *Daily, except Saturdays, during October and November.* 40

Laboratory work. Professor Ernst, and Drs. Page, Perry, Everett, Palfrey, Baker, and Frothingham. *Two to three hours daily during October and November.* 120

Text-books. — Muir and Ritchie. Abbott. Park.
Collateral Reading. — Sternberg. Heim. Migula.

Operative Dentistry.

William H. Potter, D.M.D., *Professor of Operative Dentistry.*
Forrest G. Eddy, D.M.D., *Instructor in Operative Dentistry.*
Julius G. W. Werner, D.M.D., *Clinical Instructor in Operative Dentistry.*
Dwight M. Clapp, D.M.D., *Clinical Lecturer in Operative Dentistry.*
Edwin C. Blaisdell, D.M.D., *Instructor in Operative Dentistry.*
Frederick Bradley, D.M.D., *Lecturer on Operative Dentistry.*
Joseph T. Paul, D.M.D., *Instructor in Operative Dentistry.*
Dwight W. Dickinson, D.M.D., *Demonstrator of Operative Dentistry.*
James A. Furfey, D.M.D., *Instructor in Operative Dentistry.*
Marquis D Littig, D.D.S., M.D., D.M.D., *Instructor in Operative Dentistry.*
Edwin L. Farrington, D.M.D., *Instructor in Extracting and Anaesthesia.*
Wilfred H. Starratt, D.M.D., *Instructor in Operative Dentistry.*
Ernest J. Hart, D.M.D., *Instructor in Extracting and Anaesthesia.*

Elmer J. Marston, D.M.D., *Instructor in Extracting and Anaesthesia.*
William D. Squarebrigs, D.M.D., *Instructor in Extracting and Anaesthesia.*
Samuel T. Elliott, D.M.D., *Instructor in Operative Dentistry.*
Melville F. Rogers, D.M.D., *Instructor in Operative Dentistry.*
Robert Whitehill, D.M.D., *Instructor in Operative Dentistry.*
Charles G. Pike, D.M.D., *Instructor in Operative Dentistry.*
James J. O'Brien, D.M.D., *Instructor in Extracting and Anaesthesia.*
Leroy M. S. Miner, D.M.D., *Instructor in Extracting and Anaesthesia.*
Harry B. Shuman, D.M.D., *Instructor in Oral Surgery.*

The instruction in this department is distributed over the second and third years. In the second year there is one lecture every week. These lectures deal first with the elemental principles of operative dentistry and then with the application of these principles to the simpler forms of operative work. Practical work is carried on five mornings in the week during the year. The student is first required to arrange extracted teeth in a metal model which imitates the shape of the jaws. Upon teeth thus mounted a variety of operations are performed. Thus familiarity with instruments, and ability in their use is developed. When a student has acquired operative ability by work upon the model, he is given patients. Upon these patients he performs at first the simpler operations, then the more difficult ones. In the course of the year all the more usual operations are performed.

In the third year there is one lecture every week. These lectures deal with extraction and anaesthesia and with advanced processes in operative dentistry. They are arranged so as to be a natural continuation of the lectures of the second year. Practical work is carried on five afternoons in the week, and students are required to satisfactorily perform all the accredited operations belonging to the practice of dentistry. During both the second and third years instruction is given six days in the week in extraction and anaesthesia, and students are required to fully qualify themselves in this department.

During the entire summer vacation the Infirmary is kept open for the purpose of relieving pain, and students have the privilege of a large amount of voluntary work at this time.

Clinical Lectures on Operative Dentistry. — These exercises are intended to demonstrate the individual methods of the lecturers. They include brief lectures, the exhibition of models, and practical operations upon patients.

Lectures. Professor Potter and Dr. Bradley. *Twice a week.* 60
Clinical lectures. Dr. Clapp and Dr. Starratt. *Once a week, for ten weeks.* 10
Lectures and Demonstrations. Dr. Werner. *Once a week, for thirteen weeks.* 13

Lectures. Oral Surgery. Dr. Shuman. *Once a week for six weeks, followed by clinics at the Dental School once a week throughout the year.* 6

Practical work. Drs. Eddy, Blaisdell, Bradley, Paul, Dickinson, Harding, Elliott, Littig, Furfey, Whitehill, and Pike. *Fifteen hours a week, throughout the second and third years.* 960

Extracting Clinics. Drs. Farrington, Hart, Marston, Squarebrigs, O'Brien, and Miner. *Two hours a day, throughout the second and third years.* 720

Samaritan Hospital Clinic. Dr. Rogers. *Three hours a week, throughout the third year.* 120

Text-books. — American Text-Book of Operative Dentistry. Taft, Operative Dentistry. American System of Dentistry. Marshall, Oral Surgery. Morton's Cataphoresis. Johnson, Principles and Practice of Filling Teeth. Anstie, Stimulants and Narcotics. Turnbull, Artificial Anaesthesia.

Mechanical Dentistry and Orthodontia.

Eugene H. Smith, D.M.D., *Professor of Mechanical Dentistry and Orthodontia.*

William P. Cooke, D.M.D., *Assistant Professor of Mechanical Dentistry.*

Arthur H. Stoddard, D.M.D., *Clinical Lecturer on Mechanical Dentistry.*

John W. Estabrooks, D.M.D., *Instructor in Mechanical Dentistry.*

David F. Spinney, D.M.D., *Instructor in Mechanical Dentistry.*

Amos I. Hadley, D.M.D., *Instructor in Mechanical Dentistry.*

Thomas B. Hayden, D.M.D., *Instructor in Mechanical Dentistry.*

Harold DeW. Cross, D.M.D., *Demonstrator of Mechanical Dentistry.*

John D. Dickinson, D.M.D., *Clinical Instructor in Mechanical Dentistry.*

Robert T. Moffatt, D.M.D., *Instructor in Mechanical Dentistry.*

Benjamin H. Codman, D.M.D., *Instructor in Mechanical Dentistry.*

Lawrence W. Baker, D.M.D., *Instructor in Orthodontia.*

Ernest H. Chute, D.M.D., *Instructor in Mechanical Dentistry.*

Harry S. Parsons, M.D., D.M.D., *Instructor in Mechanical Dentistry.*

John W. Dickinson, D.M.D., *Instructor in Mechanical Dentistry.*

Norman G. Reoch, D.M.D., *Instructor in Orthodontia.*

Harry W. Haley, D.M.D., *Instructor in Mechanical Dentistry.*

James B. Crofwell, D.M.D., *Instructor in Mechanical Dentistry.*

Martin B. Dill, D.M.D., *Instructor in Mechanical Dentistry.*

Wilson C. Dort, D.M.D., *Instructor in Mechanical Dentistry.*

Herbert F. Langley, D.M.D., *Instructor in Mechanical Dentistry.*

Lectures and demonstrations to the second and third class in sections followed by practical work in the laboratory : the manner in which mineral teeth are constructed, the principles and method of carving and furnace-work, and all compounds used for artificial teeth; and the manner in which gold and silver plates are prepared and adapted to the mouth; the use of rubber and other articles as bases. It is the aim to teach not only the mere mechanical processes of Dentistry, but that combination of art with mechanism which enables the practitioner to effect so much in restoring the symmetry of the face and usefulness of the teeth, where they have been lost or impaired by accident or disease.

Orthodontia is taught by lectures and by practical work in the Infirmary. During the first half of the second year, through lectures and demonstrations, the students are made familiar with the principles of normal occlusion and the various apparatus for the correction of irregularities. This is followed during the second half of the year by lectures and recitations on etiology. In the third year each student is obliged to take not less than two cases of irregularities and carry them to completion under the direction of the Professor in charge and his assistants. At the Saturday morning clinic, and on Tuesday and Thursday afternoons conferences are held on the cases under treatment. Lectures are also given which treat of the diagnosis and treatment of the various forms of malocclusion.

Lectures. Professor Smith. *Once a week.* 30

Lectures. Dr. Cross. *Once a week, throughout the second half of second year.*

Lectures. Dr. Baker. *Once a week, throughout the first half of second year.* 15

Practical work. Drs. Eldred, Hayden, Cross, Chute, Parsons, Dickinson, Estabrooks, Spinney, Hadley, Moffatt, Haley, Codman, Crofwell, Dill, Dort, and Langley. *Eighteen hours a week, throughout the second and third years.* 1080

Orthodontia Clinics. Professor Smith, Drs. Baker and Reoch. *Once a week, throughout the third year.* 30

Conferences. Drs. Baker and Reoch. *Twice a week.* 60

Porcelain Inlay.

Arthur H. Stoddard, D.M.D., *Clinical Lecturer on Mechanical Dentistry.*

Robert T. Moffatt, D.M.D., *Instructor in Mechanical Dentistry.*

Clinical Lectures. Dr. Stoddard. *Once a week for five weeks, followed by demonstrations in Continuous Gum and Inlay Work in Mechanical Laboratory and Infirmary.*

Demonstrations. Inlay Work and Carving. Dr. Moffatt.

Clinical Instruction. Dr. J. D. Dickinson. Private Laboratory. *Once a week, for eight weeks.* 12

Text-books. — Essig, American Text-book of Prosthetic Dentistry. Richardson, Mechanical Dentistry. Kingsley, Oral Deformities. Harris, Principles and Practice. Harris, Dictionary of Dentistry.

Orthodontia.

Text-books. — Farrar, Irregularities of the Teeth. Talbot, Irregularities. Guilford, Orthodontia. Angle, Treatment of Malocclusion of the Teeth and Fractures of the Maxillae.

Crown and Bridge Work.

William P. Cooke, D.M.D., *Assistant Professor of Mechanical Dentistry.*

Arthur W. Eldred, D.M.D., *Instructor in Mechanical Dentistry.*

Lectures and specimen work in laboratory, followed by practical work in the Infirmary.

Lectures and demonstrations. Asst. Professor Cooke. *Once a week.* 30

Demonstrations. Dr. Eldred. *Once a week.* 75

Text-books. — Evans, Crown and Bridge Work. Essig, American System of Dentistry. Hodgen, Dental Metallurgy. Essig and Koenig, Dental Metallurgy. Goslee, Principles and Practice of Crowning Teeth.

Surgery, Surgical Pathology, and Oral Surgery.

George H. Monks, M.D., *Lecturer on Surgery.*

John Bapst Blake, M.D., *Instructor in Surgery.*

Lectures embracing the general subjects of inflammation, suppuration, ulceration, gangrene, necrosis, erysipelas, septicemia, pyemia, shock, repair, etc.; and special subjects which more particularly concern Oral Surgery. These lectures will be illustrated, so far as possible, by diagrams, by demonstrations of pathological specimens, and by exhibition of clinical cases at the Boston City Hospital. Instruction will be given in the use of anaesthetics.

Lectures. Dr. Monks. *Once a week for ten weeks.* 10

Clinics. Dr. Blake. *Once a week for two months.* 8 or 9

Text-books. — American Text-book of Surgery. Warren, Surgical Pathology. Grant, Surgical Diseases of the Face, Mouth, and Jaws.

Operative Surgery.

Operations are performed before the students one day each week throughout the year in the Amphitheatres at the Massachusetts General Hospital and the Boston City Hospital.

The Surgical cases at the Eye and Ear Infirmary and at the Boston Dispensary are shown by the surgeons in charge.

Dental Pathology.

Charles A. Brackett, D.M.D., *Professor of Dental Pathology.*

In the beginning of the course of lectures the general principles of Pathology, including Etiology, Nosology, Semeiology, Diagnosis, and Prognosis, are outlined. The various pathological conditions in their

relations to one another and their modifications of structure and function are taught. This prepares the way for the special pathology of the region with which the dentist has most to do. The diseases of the dental and contiguous tissues are considered in detail, with reference to their nature, causes, manifestations and terminations, and their relations with systematic conditions.

Lectures. Professor Brackett. *Once a week.* 30

Text-books. — Barrett, Oral Pathology and Practice. Miller, Micro-organisms of the Human Mouth.

Collateral Reading. — Warren, Surgical Pathology and Therapeutics. Burchard, Dental Pathology, Therapeutics, and Pharmacology.

Materia Medica and Therapeutics.

Edward C. Briggs, M.D., D.M.D., *Professor of Dental Materia Medica and Therapeutics.*

Charles W. Rodgers, D.M.D., *Assistant in Dental Materia Medica.*

Lectures, recitations, and demonstrations of crude drugs and their preparations. This is a complete course, as taught in the Medical School to medical students. Remedies are classified, however, to meet the special requirements of the dental practitioner, and the student is particularly instructed upon those remedies which, as a specialist, he will be called upon most to use.

Lectures. Professor Briggs. *Once a week.* 30

Recitation and instruction in prescription writing. Dr. Rodgers. *Twice a week during December and January. Once a week, second half-year.* 30

Text-books. — Potter, Materia Medica, Pharmacy, and Therapeutics. Wood, Therapeutics, Materia Medica, and Toxicology. Bartholow, Materia Medica, and Therapeutics. Butler, Materia Medica, Pharmacology, and Therapeutics. Shoemaker, Materia Medica, Pharmacology, and Therapeutics.

Collateral Reading. — Hare, Practical Therapeutics. Thompson, Dietetics.

Neurology.

Edward W. Taylor, M.D., *Instructor in Neurology.*

A course of four lectures on Neurology will include a brief review of the anatomy and physiology of the nervous system, the anatomy of the trifacial nerve being made the subject of special study.

The nervous disturbances liable to be set up by dental irritation, and, conversely, those likely to produce odontalgia, will be considered as fully as the limited nature of the course permits, special attention being paid to trifacial neuralgia.

Lectures. Dr. Taylor. *Once a week for four weeks.* 4

To be followed by clinics at the Massachusetts General Hospital.

CLINICAL ADVANTAGES.

The Dental School is established in Boston in order to secure those advantages for Clinical Instruction which are found only in large cities.

The clinics of the Dental Hospital afford a sufficient number of patients to give every student abundant practice in all branches of Dentistry throughout the year.

Each student is assigned a chair, and is expected to improve his opportunity and operate three hours every day, five days in the week, giving each student during each year 480 hours of practice in Operative Dentistry.

In the mechanical department the student gives three hours a day for six days each week, giving 576 hours of practice each year.

Dental Statistics. — For the year 1904:

Operative department: —	
No. of patients treated	6,791
" " " for diseases of the teeth and gums	2,163
" sets of teeth cleaned	1,436
" operations	17,735
" fillings — gold	2,520
" " amalgam	2,216
" " cement	1,750
" " gutta percha	2,976
" porcelain inlays	179
" gold inlays	9
Other Surgical cases: —	
Necrosis	5
Abscess	7
Antrum disease	3
Epulis	2
Cleft palate	2
Cysts	2
Ulcerative stomatitis	3
Mechanical department. — Service to patient: —	
No. of sets of artificial teeth	190
" " " " repaired	116
" partial sets of artificial teeth	149
" appliances for fractured jaws	44
" obturators and appliances for cleft palates	18
" plug for antrum	1

Mechanical Laboratory. — Practice work : —

No. of specimen plates	312
" repair cases	28
" appliances for fractured jaws	22

Orthodontia. — Service to patients.

No. of patients treated for irregularities of the teeth	110
" appliances	211
" articulated models of regulating cases	154

Orthodontia. — Practice work : —

No. of articulated models of regulating cases	90

Crown and Bridge Work. — Service to patients : —

No. of crowns and caps	209
" " repaired	19
" pieces of bridge work	52
" pieces of bridge work repaired	5
" porcelain tips	3
" carved crowns	6

Crown and Bridge Work. — Practice work : —

No. of crowns and caps	151
" bridges	71
" porcelain inlays	132
" carved teeth models	38

The Massachusetts General Hospital. — During the past year, more than five thousand patients were treated in the wards, and over thirty thousand in the out-patient departments. Patients are received from all parts of the United States and the Provinces, and are visited by the students, with the attending physicians and surgeons, on four days in the week. Operations are numerous, and are performed in the amphitheatre, which is provided with seats for 400 persons.

The Boston City Hospital. — During the past year, about nine thousand cases were treated in its wards, and twenty-two thousand in its various out-patient departments. The medical wards always contain many cases of acute diseases, and changes are taking place constantly. The opportunities for seeing fractures, injuries, and traumatic cases of all kinds are excellent, since, on an average, eight hundred street accidents are reported yearly.

In these two hospitals, the facilities for witnessing Operative Surgery are unsurpassed. Twice a week operations are performed in the presence of the class. The number of these operations is large, reaching nearly

two thousand a year. The variety is great, embracing every surgical disease and injury, including the surgical operations on the eye and ear.

The Boston Dispensary. — More than forty thousand patients were treated at this public charity during the past year. Students have ample and excellent opportunity for seeing practical work in the diagnosis and treatment of cases illustrating the various branches of Medicine and Surgery.

The Massachusetts Charitable Eye and Ear Infirmary. — Over thirty thousand patients were treated at this institution during the past year. These cases present every variety of disease of the ear and eye, and supply a large number of operations. A new and enlarged hospital, considered to be one of the best of its kind in the world, has been erected on land adjoining the Massachusetts General Hospital. It is believed that this building will provide adequately for the proper treatment of the constantly increasing number of patients.

LIBRARIES AND MUSEUMS.

The College Library at Cambridge is open to students, and also the Library of the Boston Medical Library Association, which has a dental section containing a large and very complete collection of dental literature. It includes the libraries of the American Academy of Dental Science, and the Massachusetts Dental Society. There is a good reference library of modern books, including encyclopaedias, systems, etc. The Library is open daily except Sundays and holidays, from 9 A.M. to 6 P.M. It is also open Tuesday and Friday evenings from 7 to 10, except during July and August.

The Dental School Library for reference only also contains about seven hundred well selected volumes to which the students and graduates of the School have free access.

The Boston Public Library is open to students who are inhabitants of Boston. Students who are not inhabitants of Boston, who have filed bonds at the Treasurer's office, or deposited with the Treasurer the sum of fifty dollars, may also use this Library.

The Dental Museum is in charge of Dr. WALDO ELIAS BOARDMAN, *Curator*. It contains over 3500 specimens, and offers unusual facilities for study of the teeth. The pathological anatomy of the teeth is shown by more than 2000 specimens, among which are over 200 dissected teeth showing formations of secondary dentine in the pulp cavity, and also many other rare specimens of great value. There are 700 other specimens of human and comparative anatomy, illustrating a wide range of knowledge.

WARREN ANATOMICAL MUSEUM IN THE MEDICAL SCHOOL.

The Warren Anatomical Museum was founded in 1847 by John Collins Warren, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son to John Warren, the first Hersey Professor of Anatomy and Surgery. This important Museum is open to students in the School, and its collections are used in demonstration of the lectures. Its Curator is Dr. William Fiske Whitney.

The collection has about nine thousand specimens, illustrating both normal and pathological anatomy and materia medica. These are placed in the hands of the student at any time during the day, upon application to the Curator.

Besides dissections and serial sections of many bones, the anatomical collection includes many corrosive preparations, plaster and papier maché models of bones, organs, and various parts of the body, and frozen sections.

The pathological collection is being constantly enlarged by the addition of numerous specimens, preserved in their natural colors by Kaiserling's method.

EXAMINATIONS.

The final examination in every required subject is held at the close either of the first or of the second term of the school year. The examination, therefore, in every subject occurs once a year, but an opportunity to make up failures in examinations is offered at the opening of the school year. The examination in certain studies of the first year is held at *mid-year* only, and is for those who are members of the School at the time, and for those entitled to apply for the degree, provided they have failed previously in those subjects. The *June examination* is only for those who are members of the School at the time, and for those entitled to apply for the degree. The *September examination* is for conditioned students or for applicants for advanced standing. In some branches a portion of the examination consists of practical work in the laboratory.

The amount of time allowed for each examination is as follows: —

First Year.—Anatomy* (3 hrs.), Histology* (1 hr.), Physiology (3 hrs.), Physiological and Dental Chemistry (3 hrs.).

Second Year. — Dental Pathology (3 hrs.), Materia Medica and Therapeutics (2 hrs.), Operative Dentistry (3 hrs.), Bacteriology* (1 hr.), Mechanical Dentistry and Orthodontia (2 hrs.), Crown and Bridge Work (2 hrs.).

* The examinations in these subjects are held at the end of the first half-year.

Third Year. — Operative Dentistry (2 hrs.), Surgical Pathology and Surgery (3 hrs.), Mechanical Dentistry (2 hrs.), Orthodontia (2 hrs.), Crown and Bridge Work (2 hrs.). These examinations will include operations upon patients performed during the course.

In addition to the above examinations every student is required: —

To dissect the three parts of the body to the satisfaction of the Demonstrators;

To satisfactorily complete the required specimens of Mechanical Dentistry for the Junior and Senior years;

To demonstrate his ability to meet satisfactorily the requirements in Operative Dentistry;

To successfully carry on the treatment of at least two cases of irregularities of the teeth.

Students shall not be entitled to enter the third-year class in practical Operative and Mechanical Dentistry until they have shown reasonable proficiency in the work of the second year.

No student may advance with his class until he has passed a satisfactory examination in a majority of the studies already pursued by his class.

No student will be allowed to anticipate the examinations in the regular programme of his year, except by special permission of the Administrative Board.

Those who fail in any subject may present themselves in that subject again at the next regular examination. The regular examinations for the year 1906–07 will begin June 1 and September 20, 1906. After two failures to pass in any subject, a student must give notice twenty-four hours in advance, at the Dean's office, of his intention to take each subsequent examination in that subject, and pay a charge of three dollars.

STATE BOARD EXAMINATION.

Students shall not take a State Board examination in Dentistry previous to the time of the final examinations of their Senior year, without a written permission of the Dean of the Dental School.

DIVISION OF STUDENTS.

Students are divided into three classes according to their lines of study and proficiency, and during their Junior and Senior years will receive extensive opportunities for clinical instruction and for practice in actual operations on the natural teeth and mouth.

In order that the time of study may count as a full year, students of all classes must present themselves within the first week of the academic year and register their names with the Dean.

REQUIREMENTS FOR THE DEGREE.

The degree of Doctor of Dental Medicine (*Dentariae Medicinae Doctoris*) may be conferred upon any candidate of adult age, and of good moral character, who has passed *all the required examinations*, and fulfilled satisfactorily the special requirements enumerated on page 47. He must also give evidence of having studied Medicine or Dentistry in some recognized school three full years, the last continuous year of which must have been spent at this School.

The degree Doctor of Dental Medicine *cum laude* will be given to candidates who have pursued a complete three years' course in this School and obtained an average of eighty per cent. or over in all the required examinations.

The course is a graded one of three continuous years. *Graduates* from other reputable Dental Schools whose Course of Instruction consists of three years of nine months each may obtain the degree of Doctor of Dental Medicine by spending one year in the School and passing the required examinations.

Candidates for the degree are obliged to apply for the same in writing, on blanks furnished at the Dean's office, on or before *May 1* of the year in which they propose to graduate.

INSTRUMENTS.

With the exception of extracting instruments, lathes, and vulcanizers, flasks, impression trays, blow-pipes and articulators, each student will be required to furnish his own instruments, and appliances for both laboratory and operating room.

No dental instruments are required during the first year. At the beginning of the second year a list of instruments required for use in both the Operative and Mechanical Departments is furnished by the School, and each student is required to provide himself with the instruments enumerated upon the lists before beginning his work. The cost of these instruments, including the dental engine, is about one hundred and twenty-five dollars.

FEES AND EXPENSES.

There are no fees for matriculation, for the diploma, or for the demonstrators. For the first year of a student's membership in the School, the fee is *two hundred dollars*, in two payments of *one hundred and twenty dollars* and *eighty dollars;* for the second and third years, *one hundred and fifty dollars* each, in two payments of *ninety dollars* and *sixty dollars;* and for any subsequent year, *fifty dollars.*

During the first year there are the following additional expenses: Two dollars for each of the three parts required for dissection; two dollars for laboratory materials in Histology; three dollars for physiological material; and a maximum of ten dollars a year for chemical material, in addition to the charge for breakage of glass apparatus. Students are required to deposit with the Bursar* six dollars to cover Anatomy charges, two dollars for Histology, and twenty dollars for Chemistry and Physiology. During the second and third years a deposit of ten dollars is required to cover any loss or breakage of appliances in the Infirmary and Mechanical Laboratory. The balances of these deposits are returnable at the end of the year.

A deposit of two dollars with the Dean of the Medical School will entitle a student to the use of a locker in the Medical School building during the first year.

A student who wishes to rent a microscope of the School can do so upon payment of three to six dollars a half-year.

Special students, admitted to the courses in Operative and Mechanical Dentistry for the whole or any portion of the academic year, pay a fee of *fifty dollars* for each course.

The student's general expenses may be reduced, in accordance with his means, to the standard which prevails in other cities. A list of boarding places, at various prices, can be obtained at the rooms of the Young Men's Christian Association, corner of Berkeley and Boylston Streets, and the rooms of the Young Men's Christian Union, No. 48 Boylston Street, Boston.

Students' expenses may also be reduced by occupying rooms in the College dormitories in Cambridge. Information in regard to College rooms may be obtained after April 6 upon application to the Bursar.

At Randall Hall, Cambridge, board is furnished à la carte, at a cost which averages about $3.00 per week. Application should be made early to the Secretary of the Randall Hall Association. But any student who lives in a College room, or boards at Randall Hall, must file a bond in the sum of *four hundred dollars;* or deposit *four hundred dollars* in

* The Bursar's office is in Dane Hall, Harvard Square, Cambridge. Hours 9–1.

money or United States Bonds; or deposit *fifty* dollars as security, pay his tuition fees in advance as above, pay in advance the full year's rent of any room that may be assigned to him, and make a deposit with the Bursar as security for the payment of his board at the rate of five dollars a week.

Stillman Infirmary Fee.

Not later than October 10 in each academic year, any student may pay to the Bursar the sum of four dollars for the maintenance of the Stillman Infirmary; and, on the order of a physician, every student who has taken advantage of this opportunity will be given, in case of sickness, in return for the fee, a bed in a ward, board, and ordinary nursing for a period not exceeding two weeks in any one academic year.

PAYMENT OF FEES.

Each first-year student is required to pay to the Bursar punctually at the beginning of the academic year, without the presentation of a bill, the sum of one hundred and forty-eight dollars; each second and third-year student is required to pay, in like manner, one hundred dollars; each student entering any subsequent year is required to pay, in the same manner, fifty dollars. The remainder of the tuition fee — eighty dollars for the first-year students and sixty dollars for the second and third-year students — must be paid to the Bursar on or before January 31. Each student whose dues remain unpaid on the day fixed for their payment is required at once to cease attending lectures and using laboratories or making use of any other privileges as a student until his financial relations with the University have been arranged satisfactorily to the Bursar. Failure to comply with this rule is deemed cause for final separation of the student from the University.

Every student is required to file a bond of *fifty dollars*, executed by two sufficient bondsmen (one of whom must be a citizen of the United States), or to deposit fifty dollars in money, to cover the loss or injury of any property belonging to the University, or for which it is responsible. Blank forms of bonds may be obtained from the Bursar. No officer or student of the University is accepted as a bondsman. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School. *No degree can be conferred till all dues to the School are discharged.*

Whenever a student is obliged to withdraw from the School before the last four weeks of a half-year for no misdemeanor, but for good and sufficient reason, to be determined in all cases by the Administrative

Board, it shall be recommended that he be entitled to a remission of three-fourths of the amount due for that portion of the time during which he receives no instruction. This remission will date from the reception by the Dean of a written notice of the student's withdrawal from the School.

Students, on joining the School, and at the beginning of each school year, must enter their names with the Dean of the School. They are expected to register on the first day of the academic year, *the Thursday following the last Wednesday in September.*

For further information address Dr. Eugene H. Smith, *Dean*, No. 283 Dartmouth St., Boston, Mass.

Dean's Office: No. 283 Dartmouth Street, Boston.

Office Hours of the Dean: 9 a.m. to 4 p.m.

TABULAR VIEW.

FIRST YEAR — First Half-Year

MEDICAL SCHOOL, CORNER BOYLSTON AND EXETER STREETS.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9–10	*October, January.* Anatomy. L. Room C. *November, December.* Section A, Dissection. Rooms D and F. Section B, Histology. Lab. Room G.		*Oct., Dec., Jan.* Anatomy. L. Room C. *November.* Sect. A, Dissection. Rooms D and F. Sect. B, Histology. Lab. Room G.	*October, January.* Anatomy. L. Room C. *November.* Sect. A, Dissection. Rooms D and F. Sect. B, Histology. Lab. Room G.	*November.* Histology L. Room C.	Anatomy. L. Room C.
10–1	*October, November, December.* Section A, Anatomy. Dissection. Rooms D and F. Section B, Histology. Laboratory. Room G. *January.* Anatomy. 1st and 3d weeks. Section A, Rooms D and F. Section B, Room G. Anatomy. 2d and 4th weeks. Section A, Room G. Section B, Rooms D and F.					Anatomy. L. Room C. 10–11. Histology. L. Room C. 11–12.
2–3	*October.* Histology. L. Room C.	*October.* Anatomy. L. Room C.	*Oct., Nov., Dec.* Histology. L. Room C.	*October.* Histology. L. Room C.	*October.* Anatomy. L. Room C.	*General Chemistry and Qual. Analysis. Dental School Building.
	November, December, January. Section A, Histology. Lab. Room G. Section B, Anatomy. Dissection. Rooms D and F.		*January.* Sect. A. Hist. Lab. Room G. Sect. B. Dissection. Rooms D. and F.	*November, December, January.* Section A, Histology. Lab. Room G. Section B, Anatomy. Lab. Rooms D and F.		
3–6	*October, November, December.* Section A, Histology. Lab. Room G. Section B, Anatomy. Dissection. Rooms D and F. *January.* Anatomy. 1st and 3d weeks. Section A, Room G. Section B, Rooms D and F. Anatomy. 2d and 4th weeks. Section A, Rooms D and F. Section B, Room G.					

* Special course for conditioned students. Fee, $20.

Second Half-Year.

Physiology. February 1 to June 1.

Medical School, corner Boylston and Exeter Streets.

The programme in Physiology varies from day to day. It is illustrated by the following extract from the calendar published by the Department of Physiology at Harvard.

Date.	Laboratory Experiments, Rooms B and H. Special Demonstrations, Room A.	Written test (Rooms B and H); Conferences, Recitations, Systematic Lectures, and Theses (Room A).	
March 6	10.20–12. Blood.	9–9.30. Lecture: Theories of coagulation. Prof. Porter. 9.30–10. Conference. Prof. Cannon.	10–10.20. Written test. 12–1. Written test.
" 7	10.20–12.15. Blood.	9–9.30. Lecture: Relation of vessel wall to hydraemia. Physiological albuminuria. Prof. Porter.	9.30–10. Conference. Prof. Cannon. 10–10.20. Written test. 12.15–1. Thesis: Haemorrhage and regeneration of blood.
" 8	9.50–12.15. Blood.	9–9.30. Conference. Prof. Cannon. 9.30–9.50. Written test.	12.15–1. Thesis: Haemolysis.
" 9	10.35–12.30. Secretion.	9–9.30. Lecture: The pressure theory of secretion. Prof. Porter. 9.30–10.15. Thesis: Gland cells in rest and activity.	10.15–10.35. Written test. 12.30–1. Lecture: The chemical theory of secretion. Prof. Porter.
" 10	10.35–12.30. Respiratory exchange.	9–9.30. Lecture: The mode of action of secretory nerves. Prof. Porter. 9.30–10.15. Thesis: Internal secretion of the pancreas.	10.15–10.35. Written test. 12.30–1. Lecture: Internal secretion of thyroid, suprarenal body, and pituitary body. Prof. Porter.
" 11	11–12. Demonstration: The action of the chorda tympani and the sympathetic nerves on secretion by the submaxillary gland. Prof. Cannon.	9–9.45. Thesis: Effect of food on the nature of the digestive secretions.	10–11. Recitation. Prof. Bowditch.
" 13	10.20–1. Metabolism.	9–9.30. Lecture: Exchange of gases between the air and the tissues. Prof. Porter.	9.30–10. Lecture: Effect of changes in the composition and tension of the respired gases. Prof. Porter. 10–10.20 and 12–1. Written test.

Dental and Physiological Chemistry.

Dental School Building.

2–3	Lecture. Daily except Saturday.
3–5.30	Laboratory. Daily except Saturday.

TABULAR VIEW

1905–06 — September and October

SECOND YEAR — First Half-Year

DENTAL SCHOOL, NORTH GROVE ST.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY
9	Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. Lect.-room A.	Mat. Medica and Thera., L. Briggs. Lect.-room B.	Pract. Oper. Dentistry. Section A. Elliott. D. W. Dickinson. Dem. Pract. Mech. Dentistry. Section B. Cross, Dem. Davis.	Dent. Path., L. Brackett. Lect.-room B.	Pract. Oper. Dentistry. Section A. Littig. D. W. Dickinson. Dem. Pract. Mech. Dentistry. Section B. Cross, Dem. King.	Mech. Dent. L. [3] E. H. Smith. Lect.-rm. B.
10	[2] Pract. Oper. Dentistry. Section A. Whitehill. D. W. Dickinson. Dem. [2] Pract. Mech. Dentistry. Section B. Cross, Dem. Crofwell	Pract. Oper. Dentistry. Section B. Pike. D. W. Dickinson. Dem. Pract. Mech. Dentistry. Section A. Cross, Dem. Codman.		Op. Dent., L. Bradley. Lect.-room A.		[4] Mech. Lab. Cross, Dem. Dort. 10 to 1.
11 to 1				Pract. Oper. Dentistry. Section B. Bradley. D. W. Dickinson. Dem. Pract. Mech. Dentistry. Section A. Cross, Dem. Langley.		Extracting and Anaesthesia Miner.
2–3	Bacteriology. Lectures. Daily, except Saturdays. Room A. Medical School Building.					
3–4						
4–5	Bacteriology. Laboratory. Daily, except Saturdays. Section I, Room B. Section II, Room H. Medical School Building.					

[1] Commencing October 2, every alternate Monday.
[2] " " 2, at 10 o'clock, every alternate Monday at 9 o'clock.
[3] " September 30, every alternate Saturday.
[4] " " 30, at 10 o'clock, every alternate Saturday at 9 o'clock.

TABULAR VIEW

1905–06 — November

SECOND YEAR — First Half-Year

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
9	Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. Lect.-room B.	Mat. Medica and Thera., L. Briggs. Lect.-room B.	Pract. Oper. Dentistry. Section B. Elliott. D. W. Dickinson. Dem. Pract. Mech. Dentistry. Section A. Cross, Dem. Davis.	Dent. Path., L. Brackett. Lect.-room B.	Pract. Oper. Dentistry. Section B. Littig. D. W. Dickinson. Dem. Pract. Mech. Dentistry. Section A. Cross, Dem. King.	Mech. Dent. L. [3] Smith. Lect.-rm. B.
10	[2] Pract. Oper. Dentistry. Section B. Whitehill. D. W. Dickinson. Dem. [2] Pract. Mech. Dentistry. Section A. Cross, Dem. Crofwell.	Pract. Oper. Dentistry. Section A. Pike. D. W. Dickinson. Dem. Pract. Mech. Dentistry. Section B. Cross, Dem. Codman.		Op. Dent., L. Bradley. Lect.-room A.		[4] Mech. Lab. Cross, Dem. Dort. 10 to 1.
11 to 1				Pract. Oper. Dentistry. Section A. Bradley. D. W. Dickinson. Dem. Pract. Mech. Dentistry. Section B. Cross, Dem. Langley.		Extracting and Anaesthesia Miner.
2–3	Bacteriology. Lectures. Daily, except Saturdays. Room A. Harvard Medical School.					
3–4 4–5	Bacteriology. Laboratory. Daily, except Saturdays. Section I, Room B. Section II, Room H. Harvard Medical School.					

[1] Commencing October 2, every alternate Monday.
[2] " " 2, at 10 o'clock, every alternate Monday at 9 o'clock.
[3] " September 30, every alternate Saturday.
[4] " " 30, at 10 o'clock, every alternate Saturday at 9 o'clock.

TABULAR VIEW

1905-06 — December and January

SECOND YEAR — First Half-Year

DENTAL SCHOOL, NORTH GROVE ST.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. Lect.-room B.	Mat. Medica and Thera., L. Briggs. Lect.-room B.	Pract. Oper. Dentistry. Elliott.	Dent. Path., L. Brackett. Lect.-room B.	Pract. Oper. Dentistry. Littig.	Mechan. Dentistry or Orthodontia, L. Baker, Lect.-rm. A.
10	[2] Pract. Oper. Dentistry. Whitehill.	Pract. Oper. Dentistry. Pike.		Op. Dent., L. Bradley. Lect.-room A.		Mech. Lab. Cross. Dem. Dort. 10 to 1.
11 to 1	D. W. Dickinson. Dem.	D. W. Dickinson. Dem.	D. W. Dickinson. Dem.	Pract. Oper. Dentistry. Bradley. D. W. Dickinson. Dem.	D. W. Dickinson. Dem.	Extracting and Anaesthesia Miner.
2	Pract. Mech. Dentistry. Cross. Dem. Crofwell.	Pract. Mech. Dentistry. Cross. Dem. Codman.	Pract. Mech. Dentistry. Cross. Dem. Davis.	Pract. Mech. Dentistry. Cross. Dem. Langley.	Pract. Mech. Dentistry. Cross. Dem. King.	
	Extracting and Anaesthesia. Marston.	Extracting and Anaesthesia. Squarebrigs.	Extracting and Anaesthesia. O'Brien.	Extracting and Anaesthesia. Hart.	Extracting and Anaesthesia. Farrington.	
4		Recitation. Mat. Medica. Rodgers.			Recitation. Mat. Medica. Rodgers.	
4¾						

[1] Commencing October 2, every alternate Monday.
[2] " " 2, at 10 o'clock, every alternate Monday at 9 o'clock.

TABULAR VIEW

1905–06

SECOND YEAR — Second Half-Year

DENTAL SCHOOL, NORTH GROVE ST.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. Lect.-room B.	Mat. Medica and Thera., L. Briggs. Lect.-room B.	Mech. Dentistry, L. [3] Cross. Lect.-room A.	Dent. Path., L. Brackett. Lect.-room B.	Pract. Oper. Dentistry. Littig.	Orthodontia, L. E. H. Smith. Lect.-rm. B.
10	[2] Pract. Oper. Dentistry. Whitehill.	Pract. Oper. Dentistry. Pike.	Pract. Oper. Dentistry. Elliott.	Op. Dent., L. Bradley. Lect.-room A.		Porcelain Inlay Work. com. Apr. 7. Moffatt.
11	D. W. Dickinson. Dem.	D. W. Dickinson. Dem.	D. W. Dickinson. Dem.	Pract. Oper. Dentistry. Bradley. D. W. Dickinson. Dem.	D. W. Dickinson. Dem.	Mech. Lab. Cross. Dem. Dort. 10 to 1. Extracting and Anaesthesia Miner.
2	Pract. Mech. Dentistry. Cross. Dem. Crofwell. Extracting and Anaesthesia. Marston.	Pract. Mech. Dentistry. Cross. Dem. Codman. Extracting and Anaesthesia. Squarebrigs.	Pract. Mech. Dentistry. Cross. Dem. Davis. Extracting and Anaesthesia. O'Brien.	Pract. Mech. Dentistry. Cross. Dem. Langley. Extracting and Anaesthesia. Hart.	Pract. Mech. Dentistry. Cross. Dem. King. Extracting and Anaesthesia. Farrington.	
4		Recitation. Mat. Medica. Rodgers, till Feb. 6.			Recitation. Mat. Medica. Rodgers.	
4¾						

[1] Commencing October 2, every alternate Monday.
[2] " " 2, at 10 o'clock, every alternate Monday at 9 o'clock.
[3] Anatomical Articulation and the Mechanical treatment of Fractured Jaws, Cleft Palates, and other oral deformities.

TABULAR VIEW—1905-06

THIRD YEAR

DENTAL SCHOOL, NORTH GROVE ST.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Crown and Bridge Work. Clin. Lect. or Dem. [1] Cooke. Lect.-room B.	Surgery L. Monks. Lect.-rm. A. [3] Clin. Surg. Blake- [4] Mech. Dent. Clin. Con. J. D. Dickinson. com. Dec. 12. Op. Dent., L. or [5] Dental Jurisprudence, com. Feb. 13. Clapp. Starratt.	Op. Dent. L. Potter. Lect.-room B.	Porcelain Work, L. or Dem. [6] Stoddard. Neurology. E. W. Taylor. 4 lectures, com. Feb. 8. Med. Sch. Anat. Lect.-rm. C.	Oral Surgery, L. Shuman. Lect.-room B. [7] Op. Dent. Clin. Lect. Werner, com. Nov. 17.	Mechan. Dentistry or Orthodontia, L. E. H. Smith. Lect.-rm. B.
10 to 1	[2] Crown and Bridge Work. Clinic. Cooke. Eldred. [2] Pract. Mech. Dentistry. Lab. Estabrooks. Cross. Dem.	Pract. Mech. [9] Dentistry. Lab. Chute. Dill. Cross. Dem.	Pract. Mech. [9] Dentistry. Lab. Parsons. Hadley. Cross. Dem.	Pract. Mech. [9] Dentistry. Lab. Hayden. Haley. Cross. Dem.	Oral Surgery. Clinic. Shuman. Miner. Pract. Mech. [9] Dentistry. J. W. Dickinson. Spinney. Cross. Dem.	Orthodontia Clinic. E. H. Smith. Baker. Reoch. Extracting and Anaesthesia Miner. Pract. Mech. Dentistry. Cross. Dem. 10 to 1.
2	Pract. Op. Dentistry. Blaisdell. D. W. Dickinson. Dem. Extracting and Anaesthesia. Marston.	Pract. Op. Dentistry. Paul. D. W. Dickinson. Dem. [10] Samaritan Hospital. Rogers. Extracting and Anaesthesia. Squarebrigs.	Pract. Op. Dentistry. Eddy. D. W. Dickinson. Dem. Extracting and Anaesthesia. O'Brien.	Pract. Op. Dentistry. Bradley. D. W. Dickinson. Dem. Extracting and Anaesthesia. Hart.	Pract. Op. Dentistry. Furfey. D. W. Dickinson. Dem. Inlay Work. Stoddard, Moffatt. com. Jan. 5. Extracting and Anaesthesia. Farrington.	
4		Orthodontia. Baker. Reoch.		Orthodontia. Baker. Reoch.		

[1] Commencing October 9, every alternate Monday.
[2] " " 2, at 9 o'clock, every alternate Monday at 10 o'clock.
[3] Boston City Hospital, to be announced.
[4] In sections. Private Laboratory, 164 Newbury St.
[5] Followed by demonstrations to the class in sections.
[6] Followed by demonstrations in Inlay Work to the class in sections.
[7] Followed by Clinical Demonstrations to the class in sections.
[8] Supplemented by Clinical Demonstrations at the Massachusetts General Hospital.
[9] Demonstrations to the class in sections.
[10] In sections.

LIST OF GRADUATES

OF

THE DENTAL SCHOOL OF HARVARD UNIVERSITY.

1869.

Thomas Fillebrown, M.D. (*Medical School of Maine*),	Boston.
Robert Tanner Freeman,	*1873.
Thomas Haley,	*1892.
Edward Page, M.D. (*Harvard*),	Roxbury.
Samuel Julius Shaw,	Marlboro.
Joseph Jenkins Vincent,	Amherst.

1870.

John Thomas Codman,	Boston.
William Francis Davis,	Brooklyn, N. Y.
George Franklin Grant,	Boston.
Samuel Franklin Ham,	Los Angeles, Cal.
Daniel Grout Harrington,	*1899.
Thomas Wilson Hogue,	Bournemouth, England.
Timothy Otis Loveland,	Boston.
William Henry Noyes,	*1895.
George Luther Parmele, M.D. (*L. I. College Hospital*),	Hartford, Conn.
William Henry Thornton,	*1897.
Frank Edward Ward,	*1894
Charles Wilson,	Boston.

1871.

Charles Monroe Bailey,	Minneapolis, Minn.
George Hayward Baker,	Woonsocket, R. I.
Charles Edwin Hussey,	Biddeford, Me.
Albert Benton Jewell,	Newton.
Philip Benjamin Laskey,	Marblehead.
William Pitt Morgan,	Saginaw, W. S., Mich.

* Deceased.

1872.

George Henry Ames,	Providence, R. I.
Sidney Chapin Bancroft,	Leavenworth, Kan.
Charles Samuel Bartlett,	Boston.
James Dias Bell,	London, England.
Edwin Perley Bradbury,	Santa Barbara, Cal.
James Adkins Clark, M.D. (*Dartmouth*),	*1875.
James William Curtis,	Brunswick, Me.
George William Geist,	*1900.
John Warner Keyes,	Washington, D. C.
George Edward Langdon Noyes,	Newburyport.
Frederic Miller Robinson,	*1903.
Samuel Saiza Silva,	Southbridge.
Benjamin Henry Torrens,	Fredericton, N. B.
Winslow Lewis Tucker, A.B., A.M. (*Harvard*),	Boston.
Cecil Porter Wilson,	Boston.

1873.

Charles Albert Brackett,	Newport, R. I.
Edward Augustus Dimmick,	*1905.
George Henry Knowles,	Central Falls, R. I.
William Herbert Rollins, M.D. (*Harvard*),	Boston.
Charles Herman Wolff,	Worms am Rhein, Germany.

1874.

Willis Porter Battles,	*1899.
Edward Dwight Carr,	Kansas City, Mo.
Edward Eastman Frost,	Worcester.
George Leonard Mason,	*1895.
Horatio Cook Meriam,	Salem.
Frederic Augustus Merrill,	Boston.
Eugene Hanes Smith,	Boston.
Franklin Baker Stewart,	*1877.

1875.

Forrest Greenwood Eddy,	Providence, R. I.
John Willard Hazelton,	Peabody.
Joseph Traverse Morong,	*1880.
Wilbur Bates Parker,	Boston.
Eben Francis Whitman,	*1902.

1876.

Thomas Bradley,	New York, N. Y.
Oscar Berlin Brann,	Washington, D. C.
George Peters Caldwell, M.D. (*Harvard*),	
George Cunningham, B.L., B.Sc. (*Univ. of Paris*), B.A., M.A. CANTAB., L.D.S. (*Eng.*),	Cambridge, England.
Edgar Morton Jewett,	Portsmouth, N. H.
George Otis Lawrence,	*1899.
Jesse Robbins,	Salem.
Charles Claude Rogers, L.D.S., M.R.C.S. (*Eng.*),	London, England.
Ezra Fletcher Taft, A.B. (*Amherst*),	Cambridge.
Julius George Wilhelm Werner,	Boston.

1877.

Allston Gray Bouvé,	Boston.
Henry Francis Dunkel,	Gunnison, Colo.
Edward Bigelow Hitchcock, M.D. (*Dartmouth*),	*1900.
Washburn Edward Page,	Boston.
Frank Perrin,	Boston.
Lucius Tracy Sheffield,	*1901.
Richard Theodore Stack, M.B. (*Dublin Univ.*), M.D., L.R.C.S. (*Edin.*), CH.M. (*Dublin Univ.*), L.M., F.R.C.S., L.D.S., R.C.S. (*Eng.*),	Dublin, Ireland.
Frank Herbert Williams,	Boston.

1878.

Edward Cornelius Briggs, M.D. (*Harvard*),	Boston.
Joseph Mason Bright,	Bangor, Me.
Harry Fairfield Hamilton, B.S. (*Maine State Coll.*),	Boston.
Manning Kennard Rand,	Boston.
Daniel Frank Whitten,	*1891.
Herbert Chauncey Woodward,	Paris, France.

1879.

Frederic Eugene Banfield,	Boston.
Walter Bryant Currier,	Lynn, Mass.
Thomas Clarence Gillingham.	
Edward Samuel Niles,	Boston.
John William Smith,	*1889.

1880.

Frederick Eugene Ayer,	Boston.
Albert James Colgan,	Los Angeles, Cal.
Arthur Ernestine Lewis,	Richford, Vt.
John Scott Mason,	Saco, Me.
Virgil Clarence Pond, B.P. (*Brown Univ.*),	Boston.

1881.

William Parker Cooke,	Boston.
George Alfred Dennett,	Boston.
James Alfred Reilly,	Boston.
Edmond Rosenthal,	Brussels, Belgium.
Otis Franklin Smith,	*1903.

1882.

Dwight Moses Clapp,	Boston.
George Eubank,	Birmingham, Ala.
Edward Earl Hopkins,	Boston.

1883.

Elliot Bowdoin Bacheller,	Farmington, Me.
Edwin Carter Blaisdell,	Portsmouth, N. H.
Frederic William Hill,	Oxford, England.
Edward Albert Lowe,	*1899.
Samuel Sterrett Macfarlane,	Frankfurt am Main, Germany.
Myron William Smith,	*1886.
Joseph Ellsworth Waitt,	Boston.
George Arthur Williams,	Liverpool, England.

1884.

Charles Lincoln Abbott,	Kansas City, Mo.
Frederic William Bevington,	Lawrence.
Henry Parsons Cooke,	Worcester.
Charles Percy Curtis,	Glasgow, W., Scotland.
Arthur Crowell Gerry,	Lowell.
George Henry Gerry,	Brooklyn, N. Y.
Charles Franklin MacDonald,	Boston.
Edward Albert Stanley,	New Bedford.
Jere Edmund Stanton, M.D. (*Bellevue*),	Boston.
Alfred Horace Tester, L.D.S., R.C.S. (*Eng.*),	Tunbridge Wells, England.

1885.

Charles Henry Abbot,	Berlin, Germany.
Edward Merrill Currier, M.D. (*Boston Univ.*), M.D. (*Heidelberg*),	Boston.
Charles Eugene Estabrook,	Everett.
Thomas James Giblin,	Dorchester.
Henry Webster Gillett,	Newport, R. I.
Walter Harrison, L.D.S., R.C.S. (*Eng.*),	Brighton, England.
William Henry Potter, A.B. (*Harvard*),	Boston.
James Shepherd,	Boston.

1886.

Lyman Fisher Bigelow,	Boston.
Waldo Elias Boardman,	Boston.
William Thomas Borton,	St. Petersburg, Russia.
Frederick Bradley,	Newport, R. I.
Henry Michael Clifford,	Charlestown.
Isidor Fürst,	Hamburg, Germany.
Leonard Nutter Howe,	Boston.
Frederic Milton Mayo,	Boston.
Wilhelm Leopold Olander,	*1896.
Charles Hutchins Taft, A.B. (*Harvard*),	Boston.
Henry Lauriston Upham,	Boston.

1887.

Peter Crank, L.D.S., R.C.S. (*Eng.*),	Adelaide, So. Australia.
Carroll Ketcham Huntley,	Providence, R. I.
Leslie Maxwell, L.D.S., R.C.S.I.,	Tunbridge Wells, England.
Edwin Leslie Shattuck,	London, England.
Frank Ellsworth Sprague,	Nashua, N. H.
Henry James Stark,	*1889.
Edgar Fremont Stevens,	*1902.
Arthur Henry Stoddard,	Boston.
Charles Henry Veo,	Boston.
John Daniel Wilson,	Boston.
Harry Eugene Windsor,	Providence, R. I.
Thomas Weston Wood, A.B., A.M. (*Brown Univ.*),	Boston.
Harvey Warner Woodberry,	
Charles Frederick Wright, L.D.S., R.C.S. (*Eng.*),	London, England.

1888.

George Pierce Geist,	Frankfurt am Main, Germany.
Frederick Payne Graves,	Saco, Me.
Ellis Proctor Holmes,	Boston.
Henry Allen Kelley,	Portland, Me.
Thomas George Read, L.D.S., R.C.S. (*Eng.*),	London, England.
Frederick Arnold Stevenson, L.D.S. (*Prov. Quebec*), D.D.S. (*Bishops College, Prov. of Quebec*),	Montreal, Canada.
Charles Bryant Titcomb,	Salt Lake City, Utah.

1889.

Fred. Anthony Arnold,	Newport, R. I.
Henry Jefkins Borton,	St. Petersburg, Russia.
Charles Poor Briggs, A.B., M.D. (*Harvard*),	Boston.
William Frederick Gay, M.D. (*Tufts Coll.*),	Boston.
Paul Grünewald,	Frankfurt am Main, Germany.
Frank Irving Hammond,	Providence, R. I.
Frederick Sylvanus Hopkins,	Boston.
Daniel Albion Jones, B.A., M.D. (*Yale*),	New Haven, Conn.
William Russell Jones,	Wakefield.
William Lombardino,	Berlin, Germany.
Patrick William Moriarty,	Boston.
William Curren O'Leary,	St. Louis, Mo.
Arthur Henry Osgood, A.B. (*Harvard*),	Boston.
Caleb Heath Shepard,	*1892.
Frederic Ervin Twitchell,	Willmar, Minn.
Eugene Jakob Wetzel,	Mülhausen, Alsace, Germany.
James Robert White,	No. Adams.

1890.

Sidney Roland Bartlett, S.B. (*Mass. Inst. of Tech.*),	Independence, Kan.
Harry Oliver Bixby,	Cambridge.
Benjamin Howard Codman,	Boston.
Edwin Hartley Dixon,	New York, N. Y.
Arthur Warren Eldred,	Worcester.
Charles Manning Keep, M.D. (*Harvard*),	Boston.
Charles Elmer Luce,	Stuttgart, Germany.
Kotai Masuda,	Yokohama, Japan.
Arthur Judson Oldham,	Boston.
Hermann Paal,	Dresden, Germany.
Charles Ernest Perkins,	Brockton.
Oscar Pulvermacher,	Berlin, Germany
Edward Rolfe,	Boston.
Elbridge Abbott Shorey,	Dover, N. H.
Frank Turner Taylor,	Boston.

1891.

Paul Henri Jules Boitel,	Vevey, Switzerland.
Georges Antoine Brouillet,	Boston.
Alexander Humboldt Fisher,	Roxbury.
Adin Albert Goldsmith, D.D.S. (*Univ. of Penn.*),	London, England.
Amos Irving Hadley,	Boston.

George Meads Holden, Hackettstown, N. J.
Shimpei Nobutsune Isawa, Tokio, Japan.
George Martin, D.D.S. (*Univ. of California*), Berlin, Germany.
Clarence Moore Noble, *1897.
Hugh Owen, Auckland, New Zealand.
Joseph Totten Paul, Boston.
George Barnum Perry, Chicago, Ill.
William Fuller Sharp, D.D.S. (*Univ. of California*), San Francisco, Cal.
Fred Homer Woodcock, *1895.

1892.

Edward Stanley Bryant, Brockton.
Allen Stanley Burnham, Gloucester.
Charles Edward Bugbee Chase, Boston.
Willard Eben Curtice, Roxbury.
Kirk Addison Davenport, D.D.S. (*Univ. of Penn.*), London, England.
Ernest Frederick Gabell, Birmingham, England.
Theodore Hallett, *1898.
Herbert Frederic Hill, L.D.S., R.C.S.I. London, England.
Albert Edward Hulme, Andover.
Richard Carl Moritz, London, England.
Harry Snow Parsons, M.D. (*Bowdoin*), Boston.
Henry Robinson Peach, Salem.
Henry Edward Rose, L.D.S., R.C.S.I. Birmingham, England.
Nathan Prindle Wyllie, *1900.

1893.

Charles Oscar Cummings, A.B. (*Dartmouth*), *1894.
Frank Roberts Dickerman, Taunton.
George William Field, Jr., L.D.S., R.C.S.I. London, England.
George Rufus Gray, D.D.S. (*Univ. of Penn.*), Worcester.
Joseph Geiger Grove, Jr. Chicago, Ill.
Max Hanau, *1904.
Edward Aimé Arthur Lamere, Fitchburg.
Richard Pearson, M.R.C.S. (*Eng.*), L.R.C.P., R.C.S. (*London*), M.B., B.S., M.D. (*Durham Univ.*), London, England.
Edward Melville Quinby, M.R.C.S., L.R.C.P. (*Eng.*), Liverpool, England.
Charles Hudson Quirk, M.D. (*Harvard*), Buenos Ayres, Argentine Rep.
Frederick King Richardson, Bridgeport, Conn.
William Bertram Sansom, L.D.S., R.C.S. (*Eng.*), London, England.
John Joseph Smith, *1894.
Frank Merrett Wilkinson, Perth, West Australia.

1894.

Eugene Everett Arnold,	*1901.
Joseph Bergin Belliveau,	Boston.
Joseph Boylston,	Portsmouth, N. H.
Thomas Bernard Hayden,	Boston.
Jay Reuben Holton,	St. Louis, Mo.
Gustave Joseph Inderbitzen,	Berne, Switzerland.
Arthur Jackson,	Boston.
Frederick William Percival,	Peterborough, England.
Thomas Edward Quinn,	Boston.
Fred Gibson Robbins, M.D. (*Harvard*),	Boston.
Arthur Galusha Smith,	Peoria, Ill.
George Lund Taft, PH.B., A.B. (*Boston Univ.*),	Cambridge.
Louis Napoleon Veo,	Boston.
William Joseph Walton, M.D. (*Harvard*),	Dorchester.

1895.

Ernst Sixten Arvedson, L.D.S. (*Sweden*),	Stockholm, Sweden.
Edward Doane Barrows,	Berlin, Germany.
Robert Lander Bartlett, M.D. (*Tufts Coll.*), M.D. (*Univ. and Bellevue Hospital Med. Coll.*),	Manila, Philippine Islands.
Clarence Augustus Carr, A.B., A.M. (*Brown Univ.*),	Newport, R. I.
Walter Strout Coleman,	Portland, Me.
Dwight Ward Dickinson, B.S. (*Boston Univ.*),	Watertown.
Percy Edgelow, M.R.C.S. (*Eng.*), L.R.C.P. (*Ed.*),	London, England.
James Austin Furfey,	Boston.
Marquis D Littig, D.D.S. (*Univ. of Penn.*), M.D. (*Tufts*),	Boston.
Frederick Everett Meader,	Boston.
Richard Dyer Milliken,	Saco, Me.
Robert Tucker Moffatt,	Boston.
Henry Clinton O'Brien,	Brookline.
Patrick Henry O'Connor.	
Francis Wheeler Rice,	*1897.
Leopold Adolph Edward Scheuermann,	Berlin, Germany.
Arthur Hale Woodcock,	Boston.

1896.

Francis Homes Barnard, Jr.	Duluth, Minn.
Edgar Casper Bienemann, L.D.S. (*Coll. of Physicians and Surgeons, Scotland*),	Croydon, England.
Asher Harriman St. Clair Chase,	Everett.
Ernest Howard Chute,	Boston.
Charles Winfield Crane,	Lynn.

Harold DeWitt Cross, Nashua, N. H.
John Walter Emery, Boston.
Edwin Linwood Farrington, Lowell.
Adelbert Fernald, Boston.
Guy Webster Gilbert, Lawrence.
Harry Sargent Gilman, Boston.
Harry West Haley, Boston.
Harvey Winchester Hardy, Boston.
Harry Morrill Haynes, Boston.
Robert John McMeekin, Boston.
James Francis Martin, Springfield.
Edward Wakefield Matthews, Yarmouth.
Charles Everett Monroe, Wollaston.
Thomas Kennedy Ross, Fitchburg.
Johann Philipp Alexander Stadelmann, Dresden, Germany.
Walter Irving Sweet, Providence, R. I.
Charles Frederick York, Jr. Chelsea.

1897.

Frederick Wilde Allen, Boston.
Frank Pliny Barnard, Worcester.
Roy Keney Belden, San Francisco, Cal.
Harry Ernest Belyea, Laskatoon, North West Territory, Canada.
Charles William Berry, B.S. (*Dartmouth Coll.*), W. Somerville.
Ralph Vincent Blake, PH.G. (*Mass. Coll. of Pharmacy*), New York, N.Y.
Harold Edgeworth Davis, M.D. (*Cooper Med. Coll.*),
Papeti, Tahiti, Society Islands.
Robert Irving Davis, Chelsea.
Walter Sheldon Davis, Braintree.
John Dana Dickinson, Boston.
Harold Watson Estey, Boston.
Walter Joseph Faunce, Roxbury.
George Lincoln Forrest, Wakefield.
Leo Green, A.B. (*Coll. of City of New York*), New York, N. Y.
George True Greenwood, Fitchburg.
Francis Herbert Harding, Oakland, Cal.
Edward Everett Henry, Wellesley.
Arland Martin Kenney, Roxbury.
Charles Ansel Lakin, Worcester.
William Cable Lunan, Southbridge.
Raimond Edgar McDonnough.
Thomas Richard McMahon, Charlestown.
Joseph Thomas Mooney, Boston.
Charles Erwin Parkhurst, A.B. (*Boston Univ.*), Somerville.

Henry Carlton Spencer, Newton.
Joseph Herman Stromier, D.D.S. (*Univ. of Mich.*), L.D.S. (*Coll. of Physicians and Surgeons, Glasgow, Scot.*), Glasgow, Scotland.
David Pickard Thomas, L.D.S. (*Scotland*), Georgen, Cape Colony, Africa.
Clarence Bartlett Vaughan, Boston.
Frank Hosea Veo, Boston.
George Alfred Warren.
Walter Harris White, Boston.
Herbert Clarence Woodman, Boston.

1898.

Harry Roscoe Allen, Hartford, Conn.
Ernest Harold Christopher Bailey, E. Melbourne, Australia.
Francis William Bailey, Waterford, Ireland.
Lawrence Wills Baker, Boston.
Charles Boardman Burnham, Beverly.
John Alexander Counter, Toledo, O.
Frank Crowther, Perth Amboy, N. J.
Joseph Daley, Boston.
Eliot Taylor Dickinson, B.SC. (*Boston Univ.*), Northampton.
Giles Dowling, Dedham.
Paul Hill Duckworth, Boston.
Stewart Cheselton Fisher, St. Jo, Tex.
Harry Linwood Grant, A.B. (*Brown Univ.*), Providence, R. I.
Timothy Hanrahan, Boston.
George Herbert Harding, L.D.S., R.C.S. (*Eng.*), Llandudno, No. Wales.
Ernest Jewett Hart, Boston.
J. Churchill Hindes, Boston.
Horace Leonard Howe, Boston.
Evans Almon Leonard, Santa Fé, New Mexico.
William Saul Louisson, D.D.S. (*Univ. of Penn.*), San Francisco, Cal.
Frank Martin Lynde, A.B. (*Tufts Coll.*), Barre, Vt.
Michael Francis McDermott, M.D., C.M. (*Queens Univ., Kingston*), Kingston, Can.
John Norman Macdonald, L.D.S., R.C.S. (*Edinburgh, Scotland*), Dunedin, N. Z.
Elmer Joseph Marston, Boston.
Louis Frederic Mongeon, Boston.
Charles Edward Murphy, Salem.
William Morse Parker, West Medford.
James Avard Richan, Rockland, Me.
Frederick Augustus Leopold Schuckmann, Hameln, Germany.

Frank Bowker Siears,	Malden.
Murdock Campbell Smith, M.D., D.D.S. (*Howard Univ.*),	Lynn.
William Daniel Squarebrigs,	Boston.
Wilfred Harlow Starratt, A.B. (*Acadia Univ., Nova Scotia*),	Boston.
John Talbot Timlin,	Melrose.
Albert Everett Tuck,	Rockport.
Ernest Blake Williams,	*1899.
Oliver Perry Wolfe,	Canton.

1899.

Percy Lewis Barker,	*1900.
Harold Nickerson Boyle,	Reading.
Burt Myron Bristol,	Groton, Mass.
Ernest Earl Carle,	Malden.
John Sibley Coxeter,	Newtonville.
James Bernard Crofwell,	Roxbury.
Joseph Walter Davis,	Boston.
Franklin Everett Dawes,	Neponset.
John Matthew Donovan,	Dorchester.
Guy Jerome Elwell,	Gloucester.
Thomas Dorsey Esgate,	Hartford, Conn.
William Edward Fallon,	Boston.
George Emil Julius Federlin,	Leipzig, Germany.
Fritz Heinrich Fincke, M.D. (*Univ. of Maryland*),	*1899.
George Osbourne Gaymond,	*1903.
Everett Kendall Hallet,	New Dorchester.
Oscar John Heinrich,	Leipzig, Germany.
Elbridge Decosmos King,	Boston.
Karl Sumner Kyes,	Peterborough, N. H.
Arthur Allen Libby,	Boston.
Thomas Francis McHale,	Providence, R. I.
Alfred Cooper Nathan, D.D.S. (*Phila. Dent. Coll.*),	No. Sydney, Australia.
Norman Beverly Nesbett,	New Bedford.
Charles Warren Patch,	Chloride, Colo.
James Henry Pemberton,	Fall River.
William Eben Phillips,	Boston.
James Edward Power,	Providence, R. I.
Herbert Arthur Reed,	Boston.
Oscar Per Herman Reuterswärd,	Boston.
George Danforth Richmond,	Nantucket.
Charles Bradford Robinson.	
Willard Mariner Rowe,	Waltham.
Carl Axel Robert Samsioe,	Stockholm, Sweden.
Edwin Silas Thompson,	Vineyard Haven.

Evan Parker Wentworth,	Boston.
Edward Patrick White,	Cambridge.

1900.

George Emerson Barrell,	Somerville.
George Chandler Baldwin, *cum laude*,	Boston.
George Oliver Bartlett,	Cambridge.
Daniel Crawford Brown,	Baltimore, Md.
Harry Sanford Burton, L.D.S., R.C.S. (*Eng.*),	Oxford, England.
Stephen Frederick Carrier,	Roxbury.
Horace Amos Davis, PH.B. (*Tufts Coll.*),	Boston.
Frederick Wilbur Day,	Augusta, Me.
John Irving Esgate, *cum laude*,	No. Attleboro.
John Wesley Estabrooks, *cum laude*,	Boston.
Louis Dinsmore Holman Fuller,	Boston.
Clarence Marshall Glazier,	Roxbury.
Dennis Joseph Hurley,	Dedham.
Charles Allen Jameson,	Boston.
Edwin Newell Kent,	Brookline.
Joseph Lecomte, M.D. (*Brussels Univ., Belgium*),	Brussels, Belgium.
Carlton Butler Leighton,	Portland, Me.
Albert Ira Mackintosh,	Warren.
Charles Winthrop McPherson,	Medford.
Dwight Clifford Martin, M.D. (*Harvard*),	Boston.
William Wilkinson Marvel,	Fall River.
Leslie Herbert Naylor,	Newton.
Ralph Wheelwright Payne,	Greenfield.
Frank Derby Pierce,	W. Roxbury.
Samuel Lumn Doherty Randall,	Rio Janeiro, Brazil, South America.
Joseph Eugene Rochette,	Worcester.
Charles William Rodgers,	Dorchester.
John William Ryan,	Cambridge.
Henry Heims Simmons, *cum laude*,	Florence, Italy.
Frank Winthrop Snow,	Providence, R. I.
David Frederick Spinney,	Brookline.
Nelson Gore Trueman, M.D. (*Harvard*),	Boston.
John Augustine Watts,	Jamaica Plain.

1901.

Fennimore Shute Andrews,	Quincy.
Roland Safford Barney,	Medford.
Leslie Barnes Boutwell,	Boston.
Fred Phillips Brown,	Haverhill.
Patrick Henry Buckley,	Brockton.
Harry Howard Cushing,	So. Framingham.

James Willoughby Cutler,	Providence, R. I.
Walter Alonzo Davis,	Boston.
John Walker Dickinson,	Boston.
John Patrick Donovan,	Norwood.
Wilson Case Dort,	Boston.
Alfred Culmer Edwards, L.D.S. (*Eng.*),	Pau, France.
Samuel Tuttle Elliott, *cum laude*,	Boston.
Ellis Vinal Fanning.	Brockton.
John Joseph Gallahue,	So. Boston.
Rufus Henry Gould,	Worcester.
Hugh Kerr Hatfield, M.D. (*Harvard Univ.*),	Boston.
Charles Levi Joslin,	Somerville.
Henry Harold Luther,	Newport, R. I.
Albert Leonard Midgley, *cum laude*,	Providence, R. I.
Charles Gilman Pike,	Boston.
Norman Greene Reoch, *cum laude*,	Boston.
Arthur Verne Rogers,	Winchester.
Melville Forrest Rogers, *cum laude*,	Boston.
Paul Haywood Shinn,	Boston.
Harry Judson Smith,	Brooklyn, N.Y.
Coleman Tousey, A.B. (*Tufts Coll.*), *cum laude*,	Boston.
Emery William White,	*1902.
Robert Whitehill,	Cambridge.

1902.

Walter Adams Bradford, *cum laude*,	Boston.
Adelbert Melvin Bruce,	Beverly.
Frederick Matthew Cassidy,	Boston.
William Chesley Clinch,	Boston.
Charles Davis Cobb,	Arlington.
Burton Henry Cooper, *cum laude*,	New London, N.H.
Charles Henry Daly,	Boston.
Albert William Day,	Worcester.
Arthur Trowbridge Freeman,	Boston.
Charles Wesley Hale, *cum laude*,	Springfield.
Thomas Frederick Hammond,	Fresno, Cal.
Fred Burpee Hicks,	Brookline.
Morris Arthur Lazarus,	Boston.
Erving Fiske Lowe,	Fitchburg.
Frank Randall McCullagh,	Roxbury.
Edward James McGoldrick,	Cambridge.
Henry Edmund McNally,	Rockland.
Walter Curtis Miner,	Boston.
Walter Grover Newell,	Boston.

James Joseph O'Brien, *cum laude*, Somerville.
Thomas Bartholomew Owens, Boston.
Leo Augustine Rogers, Somerville.
Walter James Scott, Rutland, Vt.
Luther Dimmick Shepard, Jr., A.B., M.D. (*Harvard Univ.*), Boston.
Harry Benjamin Shuman, *cum laude*, Boston.
William John Speers, Newport, R. I.
Rudolph Sykora, Boston.
Charles Thomas Warner, *cum laude*, Nashua, N. H.
Henry Eugene Watkins, Worcester.
Bryce Aughterson Wilson, Providence, R. I.
George Fisher Wolfe, Norwood.
Herbert Harlan Yarrington, Rutland, Vt.

1903.

Paul Christen, Zürich, Switzerland.
Harold William Clarke, *cum laude*, Milford.
Bernhard Cohen, A.B. (*Harvard*), *cum laude*, New York, N.Y.
Henry Eli Cohen, Boston.
Ralph Prindall Cunningham, *cum laude*, Springfield.
Stanley William Damon, Boston.
John Boynton Davis, A.B. (*Harvard*), *cum laude*, Philadelphia, Pa.
Martin Bassett Dill, A.B. (*Harvard*), Providence, R. I.
Ernest Hubbell Gilbert, A.B. (*Brown Univ.*), Needham.
Henry Gilman, A.B. (*Bowdoin Coll.*), Portland, Me.
Harold Clinton Hanlon, No. Easton.
William Dimick Hazen, Lebanon, N. H.
Herbert Frank Langley, *cum laude*, Randolph.
Albert Thompson McMurray, Fredericton, N.B.
Edward O'Connor, Cambridge.
Austin Hall Parker, Boston.
Charles Henry Patton, St. John, N.B.
Frederick Capen Peterson, East Boston.
Mark Bailey Pressey, Hartford, Conn.
Frank Packard Simpson, Lyon, France.
Harry Austin Stone, Somerville.
Frank Edgar Travis, So. Framingham.
William Harry Weston, Nashua, N.H.
Aubrey Albuoy Williams, Lynn.
Clinton Nickerson Williams, Providence, R. I.
Thomas William Lee Wilson, M.A.C.D. (*Australian Coll. of Dentistry*), Ballarat, Victoria, Australia.
George Henry Wright, Boston.

1904.

Charles Henry Calusdian, Boston.
Charles Douglas Carter, Kingston, N. Y.
Raymond Boynton Carter, Pepperell.
Ernest Herbert Caswell, Dorchester.
Harry Sylvester Clark, B.S. (*Dartmouth Coll.*), *cum laude*, Danvers.
Frank Leroy Eames, W. Somerville.
Nathan Anthony Estes, Newport, R. I.
Frederick Azro Gibbs, B.S. (*Dartmouth Coll.*), Newburyport.
William Sharpe Hamilton, *cum laude*, Williamstown.
James Chester Haynes, Roxbury.
Julius Frank Hovestadt, Boston.
Marshal Luther Howver, D.D.S. (*Univ. of Michigan*), St. Petersburg, Russia.
Christopher William Hurworth, M.A.C.D. (*Australian Coll. of Dentistry*), Brisbane, Australia.
Leon Julius Lawton, *cum laude*, Providence, R. I.
Frank Donovan McDonough, Charlestown.
Leroy Matthew Simpson Miner, *cum laude*, Dorchester.
Melville Neal Otis, Providence, R. I.
Clinton Mayberry Pope, Boston.
William Burton Rogers, Pascoag, R. I.
Ubert Clifton Russell, Fitchburg.
Frank I Shaw, D.D.S. (*Vanderbilt Univ.*), Seattle, Washington.
Benjamin Tishler, Boston.
Charles Lincoln Twichell, Springfield.
Allan La Forest Watson, Kimberly, So. Africa.
Eugene Barry Wyman, *cum laude*, Brookline.

1905.

Walter Childs Bazin, D.D.S. (*Bishop's Univ., Prov. of Quebec*), Ormstown, Quebec, Canada.
Robert Scott Catheron, Needham.
Earle Clinton Cummings, Boston.
Harold Leonard Emmons, Saco, Me.
Charles Kingsley Field, London, England.
John Arthur Furbish, A.B. (*Bowdoin Coll.*), Brunswick, Me.
George Stephen Smith Greenwell, M.H.A.C. (*Hawksbury Agric. Coll., N. S. Wales*), *cum laude*, Killara, Sydney, N. S. W., Australia.
Howard Robinson Greenwell, *cum laude*, Killara, Sydney, N. S. W., Australia.

Albert Herder,	Erkelenz, Germany.
George White Isles,	Boston.
Varaztad Hovhaness Kazanjian,	Boston.
Carl Kolb,	Boston.
Philip Amos Leavitt,	Saco, Me.
Howard Mathers,	Newport, R. I.
Charles Whiting Mock,	Jamaica Plain.
Blaine Wilcox Morgan,	Lynn.
John William O'Connell,	Wakefield.
Joseph Francis O'Connor,	Cambridge.
Abner Beale Packard,	Quincy.
Newell Oscar Parker,	Boston.
Walter Oscar Paul, D.D.S. (*Philadelphia Dental Coll.*),	Sydney, N. S. W., Australia.
Simon Vartan Pazeian,	Worcester.
Walter Fairfield Provan,	Dorchester.
Charles Henry Reed,	Boston.
John Henry Russell,	Providence, R. I.
William Vernon Ryder, *cum laude*,	Everett.
Otis Shaw Smith,	Malden.
Charles Edward Stevens, *cum laude*,	Brookline.
Lester Ashton Stone,	Fitchburg.
Frank Stuhl,	Paris, France.
Harry Samuel White,	Boston.
Byron Clarke Witham,	Westbrook, Me.

EXAMINATION PAPERS.

(*Annual Examinations, 1905.*)

First Year's Studies.

ANATOMY. — Professor Thomas Dwight.

Answer the questions as briefly as possible.

1. Draw a diagram showing a frontal view of a normal occlusion involving the anatomical curve from the central incisors to the third molars.

2. Name the temporary teeth that should erupt from the twelfth to the fourteenth month.

3. When does the first upper permanent molar erupt? What is its relation to the temporary teeth?

4. What is the apical space? Describe its contents at different ages.

5. Describe the intermaxillary bone.

6. Describe the soft palate, giving the layers.

7. Describe the circle of Willis.

8. What are the surfaces of the spleen? In which is the hilum?

9. From what structures does the portal vein receive blood? What veins unite to form the portal vein? Where does it go? What structures are with it?

10. What muscles compose the flexor-pronator group of the forearm?

11. Describe the arch of the aorta, stating what vessels spring from it, and give its relations with the pulmonary artery.

12. Give the course of the facial nerve. What does it supply?

HISTOLOGY. — Professor Minot.

[Each student is given six sections to correspond to the six questions below. He is expected to make simple drawings only, but sufficient to show that he has correctly identified the parts. Any student who draws tissues or structures, not shown in his preparations, will be considered to have failed in all his answers.]

1. Draw and describe carefully all the principal structures shown in the section.

2. Draw and describe the section and the tissues found in it, stating from which germ layer each tissue is formed.

3. Identify, draw, and describe the section.

4. Draw and describe from the section the embryonic mesendryma and the notochord.

5. Identify, draw, and describe the section.

6. Draw and describe the process of ossification as shown by the preparation.

PHYSIOLOGY. — Professor W. T. Porter.

[Answer any three questions, but not more than three. Mention, where possible, experimental evidence in support of your opinion. Matter not bearing directly on the question asked will count against the writer.]

1. Discuss coagulation.

2. Describe in full any highly developed reflex mechanism, for example that governing micturition.

3. State the evidence for the chemical theory of secretion.

4. Discuss the analysis of sounds by the ear.

PRACTICAL EXAMINATION IN PHYSIOLOGY.

Professor W. T. Porter.

[Each student is required to make four of the six experiments drawn by him, and to write an account of his observations on the blank furnished herewith. Where the results of the experiments are not expressed in a graphic record they must be demonstrated to the instructor.]

1. Record the action of the sympathetic on the heart. Demonstrate the progressive spreading of impulses in the central nervous system. Record curves showing the influence of changes in the aortic pressure on the interval between the beginning of ventricular contraction and the opening of the semilunar valves (in the artificial scheme).

2. Demonstrate that the cardiac systole is a simple and not a tetanic contraction. Show the influence of load on the work done by the skeletal muscle. Show where the more complicated coördinated reflex acts have their centres.

3. Show evidence that the ventricular contraction wave may be transmitted by muscular tissue. Prove that the excitability of a nerve is altered in the neighborhood of the anode and the cathode during the passage of the galvanic current. Secure a record of the effect of duration of stimulus on smooth muscle.

4. Furnish experimental evidence for an explanation of the auriculo-ventricular interval. Prove that the galvanic current stimulates during the whole time of its passage through an irritable tissue. Demonstrate the influence of increased load on ventricular contraction.

5. Prove the existence of tonic contraction of muscle. Demonstrate the current of action in muscle or nerve. Give experimental evidence that the vagus connects with the nerve cells in the heart.

6. Demonstrate polar stimulation by the galvanic current. Show the vasomotor functions of the spinal cord. Demonstrate the inhibition of reflex action in the frog.

7. Show the function of the anterior spinal nerve-roots. Record with the artificial scheme pulse curves of low arterial tension and high arterial tension, and discuss their method of production. Contrast diagrams showing the formation of the image (1) in myopia, (2) in hypermetropia, (3) in hypermetropia with a correcting lens.

8. Record the effect of inhibition of the heart on arterial pressure in the frog. Demonstrate on muscle the different effect of sudden and of gradual increase in intensity of stimulus. Prove the discontinuous nature of tetanic contraction.

9. Record the effect of stimulation of the vagus on the beat of the ventricle. Show that all contractions of heart muscle are maximal. Give experimental evidence that a nerve fibre may conduct impulses in both directions.

10. Show by diagram the method of determining the size of a retinal image. Demonstrate the limits of the refractory period and the existence of the compensatory pause. Prove that the demarcation current (current of injury) may act as a stimulus.

11. Record curves showing the influence of temperature on the contraction of skeletal muscle. Demonstrate differences in the physiology of smooth and striated muscle. Show that the control of movements is localized at different levels of the spinal cord.

12. Show that a constant stimulus may cause periodic contraction. Show the influence of fatigue on muscular contraction. Draw a construction showing the formation of the image in the indirect method of observing the retina.

13. Show the segmental arrangement of the reflex apparatus. Draw a diagram showing the course of the rays in astigmatism. Show the influence of an increase in peripheral resistance on the blood pressure in the frog.

14. Prove the independent irritability of muscle. Show experimental proof of the law of contraction with weak, medium, and strong ascending currents. Demonstrate with the artificial thorax the relations between pulmonary and intra-thoracic pressure during inspiration and expiration. State these relations in writing, with diagrams.

15. Compare an isometric contraction with an isotonic contraction. Obtain from the artificial scheme of the circulation a characteristic pulse curve of aortic regurgitation and explain its production. Demonstrate and discuss the apparent purpose in reflex action.

16. Demonstrate that the physiological anode and cathode may differ from the physical poles. Prove that oxidation may be caused by animal tissue. Demonstrate the influence of the sympathetic nerve on the iris of the frog.

17. Demonstrate polar inhibition. Demonstrate the importance of the nucleus in intracellular oxidations. Prove that tonic and simple contractions of the same tissue may occur at the same time.

PHYSIOLOGICAL AND DENTAL CHEMISTRY.

H. Carlton Smith.

1. Give a distinguishing test for glucose other than phenyl-hydrazine. (Name of test sufficient.)

Describe the microscopical appearance of corn and of potato starch.

2. Give three points of similarity and two of difference in the digestive action of the saliva and of the pancreatic juice.

3. In what parts or fluids of the body are the following substances chiefly found? Name one source only.

Gelatine. Sarco-lactic acid. Mucin. Uric acid. Free hydrochloric acid. Glycogen. Potassium sulphocyanate. Keratin. Steapsin and globulin.

4. How does the composition of the tartar differ from that of the teeth?

5. What is an "Amido acid"? What is the relation of these acids to the general metabolism?

6. If uric acid is found in excess in the system, how may it be diminished in quantity? Give detail of method for its quantitative estimation in the urine.

7. What is the proportion of pure gold in an 18-carat alloy? What two metals are used in alloying gold?

8. How and where is gold separated in the quantitative examination of dental alloys?

9. In what form is oxalic acid usually present in the saliva? In the urine? How may it be recognized, and what does it signify?

10. The following analyses are improbable, in some respects impossible. Show wherein such improbabilities exist and give reasons for each.

Urine. — Sp. gr. 1014. Color, normal. Strongly acid in reaction. Indoxyl, low normal. Urea 2.64%. Chlorine 1.41%. Uric acid .033%. Phosphates normal. Albumin and sugar both absent. Sediment contains triple phosphates and leucocytes.

Saliva. — Reaction alkaline. Sp. gr. 1005. Ammonia considerably in excess of the sulphocyanates. Chlorine, much increased. Crystals of calcium lactate observed under the micro-polariscope.

Second Year's Studies.

BACTERIOLOGY. — Professor Ernst.

1. Describe the morphological and biological characteristics of B. typhosus.
2. What are the methods of making the agglutination test in typhoid fever?
3. Describe the morphology and methods of staining of M. gonorrhoeae.
4. How are antitoxines produced?

DENTAL PATHOLOGY. — Professor Brackett.

1. The pathology of the dental pulp.
2. The pathology of the investments of the teeth.
3. The characteristics of inflammation.
4. Etiology of dental caries.
5. Non-malignant new growths in the mouth.
6. Neuralgia.
7. Consequences in the mouth of salivation.
8. Expressions of disease in the mouth communicable by dentist's unsterilized instruments.
9. Hereditary syphilis.
10. Supernumerary teeth.

OPERATIVE DENTISTRY. — Dr. Bradley.

1. Describe three expressions of dental pain, and the clinical treatment for their relief.

2. Describe the process of cleaning, including salivary calculus.

3. Give the general principles involved in the preparation of cavities for filling.

4. Why should moisture be excluded from the field of operation? Describe methods.

5. Describe the treatment of teeth with dead pulps.
   (*a*) Those which have died from the approach of caries.
   (*b*) Those which have died under a filling, without decay.
   (*c*) Those which have died as a result of some injury.

6. Discuss the merits of gutta percha and oxyphosphate of zinc as filling materials.

7. Describe the filling of a cavity, involving the distal and crown of an inferior second molar, with amalgam, using a matrix (a large cavity, but not exposing the pulp).

8. Describe the preparation and filling with gold of approximal cavities in the superior bicuspids (cavities of medium size).

9. Discuss the value and treatment of the sixth year molar.

10. Discuss the relative merits of hand instruments and engine instruments in cleaning teeth and in the preparation of cavities.

MATERIA MEDICA AND THERAPEUTICS. — Professor Briggs.

1. Adrenalin chloride.

2. Treatment of pyorrhoea alveolaris or interstitial gingivitis.

3. Given a 20% solution of carbolic acid, how would you proceed to make 8 ounces of a $3\frac{1}{2}\%$ solution?

4. Argenti nitras.

5. Disadvantages and inconveniences in the use of ether. To what extent may they be overcome and how?

6. Write a prescription for 32 grammes of a $1\frac{1}{2}\%$ solution of cocaine hydrochlorate.

7. Calcium sulphide.

8. Name and describe antipyretics.

9. Define counterirritants, astringents, diuretics, aqua, liquor.

10. Acidum lacticum.

CROWN AND BRIDGE WORK. — Asst. Professor Cooke.

1. Describe the making of a porcelain-faced banded Richmond crown.

2. (*a*) How would you make a post crown?
   (*b*) How would you make an all-metal banded crown?

3. State your difficulties in making your specimen crowns. How obviate them?

4. How would you make a bridge from cuspid to cuspid, having one open-faced crown and a post crown as abutments?

5. How are seamless crowns made?

6. What crowns have the best grinding surface and how would you make one?

7. (*a*) Give uses of flux in soldering.
(*b*) Give uses of annealing metals.
(*c*) Give points to be observed in soldering.

8. How make an Ash tube crown with band, cap and posts?

9. How bridge from lower first bi-cuspid to second molar, the second bi-cuspid and first molar being absent and the first bi-cuspid and second molar tipping towards each other?

10. Describe the making of a partial banded porcelain-faced crown for an upper central incisor.

MECHANICAL DENTISTRY AND ORTHODONTIA.

Professor Smith.

1. Describe the manner and advantages of using the face bow.

2. Describe the normal occlusion and articulation. (Use diagrams.)

3. Describe each step in constructing a superior partial vulcanite plate with clasps.

4. Describe the manner of taking the occlusion for entire single, double, and partial cases.

5. Describe (*a*) reconstructed model.
(*b*) Angle's appliances for maxillary fractures.
(*c*) vulcanite interdental splint.

6. (*a*) What benefits are derived from an artificial palate?
(*b*) How is the improvement in speech produced?
(*c*) Describe the difference between a velum and an obturator.

7. (*a*) Give occlusial relations of the inferior central incisors to the superior incisors.
(*b*) Give the occlusial relations of the superior second bicuspid to the inferior teeth.

8. Describe the various forms of distal occlusion.

9. Describe clearly the influence of the eruption of the inferior incisors upon the superior arch.

10. Enumerate the various ways in which the teeth indicate advancing age, and how to reproduce those conditions artificially?

Third Year's Studies.

ORTHODONTIA. — Professor Smith.

1. What influence has heredity in producing irregularities of the teeth?

2. Etiology of the V and saddle-shape arch.

3. What method of widening a superior arch do you consider best in a case of high and pronounced construction of the palatal vault?

4. In reducing inferior prognathism where and how does the change take place?

5. Patient, female, 20 years old. Cuspid erupting over right central incisor, apex of cuspid root pointing towards median line, slight space between incisors, normal occlusion of molars and bicuspids. Treatment?

6. Discuss the theory that pyorrhoea is likely to follow in cases where the teeth have been much moved in the correction of irregularities.

7. In distal occlusion how determine whether the error is in the upper or lower jaw.

8. Cite a case where the extraction of the sixth year molars would be justifiable.

9. (*a*) To what extent may molars be moved posteriorly to make room for bicuspids and cuspids in mal-occlusions.
(*b*) Appliances for producing such movements.

10. What conditions determine the relations of the tubes to the anchor band?

OPERATIVE DENTISTRY. — Professor Potter.

1. Name the principal methods by which cohesive gold is condensed in the making of a filling. State the results which are obtained by the methods named.

2. Draw cross sections of the superior and inferior maxilla and discuss the anatomical relations of the roots of the teeth to the tissues in which they are imbedded. Of what value is the knowledge of these relations in the operation of the extraction of teeth?

3. Describe in detail the three stages or conditions of the patient to be noted when nitrous oxide gas is administered as an anaesthetic. How do you know when enough nitrous oxide has been given?

4. What are the characteristics of the second stage of etherization under the semi-close method? Is it desirable to perform a surgical operation when patient is in second stage? How do you know when enough ether has been given?

5. What is the composition of Somnoforme? How does its boiling point compare with the normal temperature of the body? Compare the anaesthesia produced by Somnoforme with that produced by nitrous oxide gas.

6. What would you do if the breathing of a patient stopped during the giving of an anaesthetic?

7. What methods should be followed in the preparation of a cavity for a porcelain inlay?

8. Discuss combination fillings.

9. What combination of filling materials would you advise for a large occluso-distal cavity in a bicuspid? How would you make the filling?

10. In what different ways can the antrum be opened for the purpose of treatment?

CROWN AND BRIDGE WORK. — Asst. Professor Cooke.

1. Discuss the crowning of teeth that have fractured roots.

2. Give methods of crowning teeth when the roots are badly decayed.

3. Give at least two ways of crowning one of the six superior anterior teeth when the pulps are alive.

4. (*a*) When would you use a banded crown?
(*b*) When would you use a post crown?

5. Discuss the question of crowning teeth with direct strike.

6. Give methods of crowning superior lateral incisors when they are conical in shape.

7. Describe the use of modern porcelain bodies in crown and bridge work.

8. Give the advantages of at least three different post crowns and two banded crowns.

9. Give the advantages and disadvantages of bridge work.

10. Discuss the crowning of teeth with live pulps, of crowning and bridging loose teeth. Give points to be observed in the care of a mouth in which there are many crowns.

MECHANICAL DENTISTRY. — Professor Smith.

1. What conditions indicate the use of cheoplastic base?

2. Woman, age 50, lower central incisors lost from pyorrhoea, lateral incisors little loose, rest of the teeth in good occlusion. Describe two ways of supplying the lost incisors.

3. Cite a case where instead of a clasp plate, you would use a saddle bridge without posterior abutments.

4. English tube teeth, how made and used?

5. Discuss the use of clasps.

6. What is the vulcanite pressure in pounds when the thermometer registers 320°?

7. What changes take place in rubber during the process of vulcanizing?

8. Why should carved teeth be biscuited?

9. What causes the shrinkage in the fusion of bodies?

10. What class of cavities require round inlays, what require high, and what require low fusion bodies.

SURGICAL PATHOLOGY AND SURGERY.

Drs. Monks and Blake.

1. Describe the development of acute inflammation of the soft parts.
2. The development of an acute abscess.
3. Describe the healing of a wound by first intention.
4. The resemblances and differences between caries and necrosis.
5. The characteristics of the initial lesion of syphilis.
6. Mention some of the causes of gangrene.
7. Describe the local and general preparations of a patient for ether anaesthesia.
8. Describe a case of leucoplakia.
9. Symptoms, possible complications, and sequalae of alveolar abscess.
10. Describe an efficient method of preparing the hands of a surgeon for an aseptic operation.

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The Annual University Catalogue.

The Annual Catalogues of the College and the several Professional Schools of the University; the Announcements of the several Departments; etc., etc.